

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Westfield
Westfield Executive Park
53 Southampton Road
Westfield, MA 01085
Tel: (413)572-4000

CHECKED FOR COMPLETENESS
~~OF PAR~~ ~~AND FOR COMPLETENESS~~
~~OF PA~~ ~~BY~~
[Signature]

6/14/11

TestAmerica Job ID: 360-33892-1
Client Project/Site: Olin Chemical SemiAnnual Groundwater

For:
Olin Corporation
PO BOX 248
Charleston, Tennessee 37310-0248

Attn: Mr. James Cashwell

[Signature]

Authorized for release by:
05/31/2011 04:31:46 PM
Joe Chimi
Report Production Representative
joe.chimi@testamericainc.com
Designee for
Becky Mason
Project Manager II
becky.mason@testamericainc.com

LINKS

Review your project
results through

Total Access

Have a Question?

Ask
The
Expert

Visit us at:
www.testamericainc.com

Results relate only to the items tested and the sample(s) as received by the laboratory. The test results in this report meet all 2003 NELAC requirements for accredited parameters, exceptions are noted in this report. Pursuant to NELAC, this report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Detection Summary	6
Method Summary	10
Sample Summary	11
Client Sample Results	12
Definitions	19
QC Association	20
QC Sample Results	24
Chronicle	53
Certification Summary	58
Sample Receipt Checklist	60
Chain of Custody	61

Case Narrative

Client: Olin Corporation
Project/Site: Olin Chemical SemiAnnual Groundwater

TestAmerica Job ID: 360-33892-1

Job ID: 360-33892-1

Laboratory: TestAmerica Westfield

Narrative

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 05/18/2011; the samples arrived in good condition, properly preserved and on ice. The temperatures of the coolers at receipt were 1.0 and 2.6 C.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2 C of the required temperature or method specified range. For samples with a specified temperature of 4 C, samples with a temperature ranging from just above freezing temperature of water to 6 C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

DISSOLVED METALS

Samples OC-GW-10S (360-33892-1), OC-GW-201S (360-33892-2), OC-GW-24 (360-33892-3), OC-GW-26 (360-33892-4), OC-GW-34D (360-33892-5), OC-GW-34SR (360-33892-6), OC-GW-35S (360-33892-7), OC-GW-43SR (360-33892-8), OC-GW-76S (360-33892-9), OC-GW-202S (360-33892-10), OC-GW-202D (360-33892-11), OC-GW-25 (360-33892-12), OC-GW-78S (360-33892-13), OC-GW-79S (360-33892-14), OC-PZ-16RR (360-33892-15), OC-PZ-17RR (360-33892-16), OC-PZ-18R (360-33892-17), OC-GW-202S DUP (360-33892-18) and OC-PZ-18R DUP (360-33892-19) were analyzed for dissolved metals in accordance with EPA SW-846 Method 6010B. The samples were analyzed on 05/19/2011 and 05/20/2011.

Chromium was detected in method blank MB 360-73908/2 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

Sample OC-GW-34D (360-33892-5)[2X] required dilution prior to analysis due to high non-target concentration. The reporting limits have been adjusted accordingly.

At the request of the client, an abbreviated/modified MCP analyte list was reported for this job.

No other difficulties were encountered during the dissolved metals analyses.

All other quality control parameters were within the acceptance limits.

ANIONS

Samples OC-GW-10S (360-33892-1), OC-GW-201S (360-33892-2), OC-GW-24 (360-33892-3), OC-GW-26 (360-33892-4), OC-GW-34D (360-33892-5), OC-GW-34SR (360-33892-6), OC-GW-35S (360-33892-7), OC-GW-43SR (360-33892-8), OC-GW-76S (360-33892-9), OC-GW-202S (360-33892-10), OC-GW-202D (360-33892-11), OC-GW-25 (360-33892-12), OC-GW-78S (360-33892-13), OC-GW-79S (360-33892-14), OC-PZ-16RR (360-33892-15), OC-PZ-17RR (360-33892-16), OC-PZ-18R (360-33892-17), OC-GW-202S DUP (360-33892-18) and OC-PZ-18R DUP (360-33892-19) were analyzed for anions in accordance with EPA Method 300.0. The samples were analyzed on 05/20/2011, 05/21/2011, 05/22/2011 and 05/24/2011.

Chloride failed the recovery criteria high for the MS of sample OC-PZ-18R (360-33892-17) in batch 360-74128. The associated LCS recovered within control limits. Refer to the QC report for details.

Samples OC-GW-201S (360-33892-2)[20X], OC-GW-43SR (360-33892-8)[10X], OC-GW-202S (360-33892-10)[10X], OC-GW-202D

Case Narrative

Client: Olin Corporation

TestAmerica Job ID: 360-33892-1

Project/Site: Olin Chemical SemiAnnual Groundwater

Job ID: 360-33892-1 (Continued)

Laboratory: TestAmerica Westfield (Continued)

(360-33892-11)[10X], OC-GW-202D (360-33892-11)[20X], OC-GW-25 (360-33892-12)[10X], OC-GW-78S (360-33892-13)[10X], OC-GW-79S (360-33892-14)[10X], OC-GW-79S (360-33892-14)[20X], OC-PZ-16RR (360-33892-15)[10X], OC-PZ-17RR (360-33892-16)[10X], OC-PZ-18R (360-33892-17)[20X], OC-PZ-18R (360-33892-17)[50X], OC-GW-202S DUP (360-33892-18)[10X], OC-PZ-18R DUP (360-33892-19)[10X] and OC-PZ-18R DUP (360-33892-19)[20X] required dilution prior to analysis due to high target concentration. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the anions analyses.

All other quality control parameters were within the acceptance limits.

AMMONIA

Samples OC-GW-10S (360-33892-1), OC-GW-201S (360-33892-2), OC-GW-24 (360-33892-3), OC-GW-26 (360-33892-4), OC-GW-34D (360-33892-5), OC-GW-34SR (360-33892-6), OC-GW-35S (360-33892-7), OC-GW-43SR (360-33892-8), OC-GW-76S (360-33892-9), OC-GW-202S (360-33892-10), OC-GW-202D (360-33892-11), OC-GW-25 (360-33892-12), OC-GW-78S (360-33892-13), OC-GW-79S (360-33892-14), OC-PZ-16RR (360-33892-15), OC-PZ-17RR (360-33892-16), OC-PZ-18R (360-33892-17), OC-GW-202S DUP (360-33892-18) and OC-PZ-18R DUP (360-33892-19) were analyzed for ammonia in accordance with Lachat 107-06-1B. The samples were prepared on 05/20/2011 and 05/24/2011 and analyzed on 05/25/2011.

Ammonia failed the recovery criteria low for the MS and MSD of sample OC-GW-202S (360-33892-10) in batch 360-74242. The associated LCS recovered within control limits. Ammonia failed the recovery criteria low for the MS and MSD of sample OC-PZ-18R (360-33892-17) in batch 360-74244. The associated LCS recovered within control limits. Refer to the QC report for details.

Samples OC-GW-201S (360-33892-2)[10X], OC-GW-24 (360-33892-3)[5X], OC-GW-34D (360-33892-5)[5X], OC-GW-35S (360-33892-7)[5X], OC-GW-202S (360-33892-10)[5X], OC-GW-202D (360-33892-11)[20X], OC-GW-25 (360-33892-12)[5X], OC-GW-78S (360-33892-13)[5X], OC-GW-79S (360-33892-14)[10X], OC-PZ-16RR (360-33892-15)[10X], OC-PZ-17RR (360-33892-16)[5X], OC-PZ-18R (360-33892-17)[20X], OC-GW-202S DUP (360-33892-18)[10X] and OC-PZ-18R DUP (360-33892-19)[20X] required dilution prior to analysis due to high concentration. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the ammonia analyses.

All other quality control parameters were within the acceptance limits.

SPECIFIC CONDUCTIVITY

Samples OC-GW-10S (360-33892-1), OC-GW-201S (360-33892-2), OC-GW-24 (360-33892-3), OC-GW-26 (360-33892-4), OC-GW-34D (360-33892-5), OC-GW-34SR (360-33892-6), OC-GW-35S (360-33892-7), OC-GW-43SR (360-33892-8), OC-GW-76S (360-33892-9), OC-GW-202S (360-33892-10), OC-GW-202D (360-33892-11), OC-GW-25 (360-33892-12), OC-GW-78S (360-33892-13), OC-GW-79S (360-33892-14), OC-PZ-16RR (360-33892-15), OC-PZ-17RR (360-33892-16), OC-PZ-18R (360-33892-17), OC-GW-202S DUP (360-33892-18) and OC-PZ-18R DUP (360-33892-19) were analyzed for specific conductivity in accordance with SM20 2510B. The samples were analyzed on 05/26/2011 and 05/27/2011.

Samples OC-GW-202D (360-33892-11)[2X], OC-GW-79S (360-33892-14)[2X], OC-PZ-18R (360-33892-17)[4X] and OC-PZ-18R DUP (360-33892-19)[4X] required dilution prior to analysis due to high concentration. The reporting limits have been adjusted accordingly.

No difficulties were encountered during the conductivity analyses.

All quality control parameters were within the acceptance limits.

MassDEP Analytical Protocol Certification Form

Laboratory Name:	TestAmerica Westfield		Project #:	360-33892-1		
Project Location:			RTN:			
This form provides certifications for the following data set: list Laboratory Sample ID Number(s):						
360-33892-(1-19)						
Matrices: <input checked="" type="checkbox"/> Groundwater/Surface Water <input type="checkbox"/> Soil/Sediment <input type="checkbox"/> Drinking Water <input type="checkbox"/> Air <input type="checkbox"/> Other:						
CAM Protocols (check all that apply below):						
8260 VOC CAM II A <input type="checkbox"/>	7470/7471 Hg CAM III B <input type="checkbox"/>	Mass DEP VPH CAM IV A <input type="checkbox"/>	8081 Pesticides CAM V B <input type="checkbox"/>	7196 Hex Cr CAM VI B <input type="checkbox"/>	Mass DEP APH CAM IX A <input type="checkbox"/>	
8270 SVOC CAM II B <input type="checkbox"/>	7010 Metals CAM III C <input type="checkbox"/>	Mass DEP EPH CAM IV B <input type="checkbox"/>	8151 Herbicides CAM V C <input type="checkbox"/>	8330 Explosives CAM VIII A <input type="checkbox"/>	TO-15 VOC CAM IX B <input type="checkbox"/>	
6010 Metals CAM III A <input checked="" type="checkbox"/>	6020 Metals CAM III D <input type="checkbox"/>	8082 PCB CAM V A <input type="checkbox"/>	9014 Total Cyanide/PAC CAM VI A <input type="checkbox"/>	332.0 Perchlorate CAM VIII B <input type="checkbox"/>		
Affirmative Responses to Questions A through F are required for "Presumptive Certainty" status						
A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding time.				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
E	a. VPH, EPH and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications). b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?				<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No	
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Responses to Questions G, H and I below are required for "Presumptive Certainty" status						
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No ¹	
<i>Data User Note: Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WCS-07-350</i>						
H	Were all QC performance standards specified in the CAM protocol(s) achieved?				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s) ?				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
¹ All negative responses must be addressed in an attached laboratory narrative.						
<i>I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, is accurate and complete.</i>						
Signature:				Position:	Laboratory Director	
Printed Name:	Steven C. Hartmann			Date:	5/31/11 16:09	
This form has been electronically signed and approved						

Detection Summary

Client: Olin Corporation

TestAmerica Job ID: 360-33892-1

Project/Site: Olin Chemical SemiAnnual Groundwater

Client Sample ID: OC-GW-10S

Lab Sample ID: 360-33892-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	3300		100	12	ug/L	1		6010B	Dissolved
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	42		2.0	2.0	mg/L	1		300.0	Total/NA
Chloride	7.4		1.0	1.0	mg/L	1		300.0	Total/NA
Specific Conductance	100		1.0	1.0	umhos/cm	1		SM 2510B	Total/NA

Client Sample ID: OC-GW-201S

Lab Sample ID: 360-33892-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	24	B	5.0	0.65	ug/L	1		6010B	Dissolved
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	1400		40	40	mg/L	20		300.0	Total/NA
Chloride	41		1.0	1.0	mg/L	1		300.0	Total/NA
Ammonia	83		1.0	1.0	mg/L	10		L107-06-1B	Total/NA
Specific Conductance	2800		1.0	1.0	umhos/cm	1		SM 2510B	Total/NA

Client Sample ID: OC-GW-24

Lab Sample ID: 360-33892-3

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	52		2.0	2.0	mg/L	1		300.0	Total/NA
Chloride	8.1		1.0	1.0	mg/L	1		300.0	Total/NA
Ammonia	24		0.50	0.50	mg/L	5		L107-06-1B	Total/NA
Specific Conductance	330		1.0	1.0	umhos/cm	1		SM 2510B	Total/NA

Client Sample ID: OC-GW-26

Lab Sample ID: 360-33892-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	7.3	B	5.0	0.65	ug/L	1		6010B	Dissolved
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	75		2.0	2.0	mg/L	1		300.0	Total/NA
Chloride	11		1.0	1.0	mg/L	1		300.0	Total/NA
Ammonia	19		0.10	0.10	mg/L	1		L107-06-1B	Total/NA
Specific Conductance	320		1.0	1.0	umhos/cm	1		SM 2510B	Total/NA

Client Sample ID: OC-GW-34D

Lab Sample ID: 360-33892-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	14		10	1.3	ug/L	2		6010B	Dissolved
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	89		2.0	2.0	mg/L	1		300.0	Total/NA
Chloride	4.4		1.0	1.0	mg/L	1		300.0	Total/NA
Ammonia	19		0.50	0.50	mg/L	5		L107-06-1B	Total/NA
Specific Conductance	320		1.0	1.0	umhos/cm	1		SM 2510B	Total/NA

Client Sample ID: OC-GW-34SR

Lab Sample ID: 360-33892-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	1.2	J B	5.0	0.65	ug/L	1		6010B	Dissolved
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	9.5		2.0	2.0	mg/L	1		300.0	Total/NA
Chloride	2.4		1.0	1.0	mg/L	1		300.0	Total/NA
Ammonia	0.30		0.10	0.10	mg/L	1		L107-06-1B	Total/NA

TestAmerica Westfield

Detection Summary

Client: Olin Corporation

TestAmerica Job ID: 360-33892-1

Project/Site: Olin Chemical SemiAnnual Groundwater

Client Sample ID: OC-GW-34SR (Continued)**Lab Sample ID: 360-33892-6**

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Specific Conductance	67		1.0	1.0	umhos/cm	1		SM 2510B	Total/NA

Client Sample ID: OC-GW-35S**Lab Sample ID: 360-33892-7**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	34	J	100	12	ug/L	1		6010B	Dissolved
Chromium	14	B	5.0	0.65	ug/L	1		6010B	Dissolved
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.8		1.0	1.0	mg/L	1		300.0	Total/NA
Ammonia	22		0.50	0.50	mg/L	5		L107-06-1B	Total/NA
Specific Conductance	1300		1.0	1.0	umhos/cm	1		SM 2510B	Total/NA

Client Sample ID: OC-GW-43SR**Lab Sample ID: 360-33892-8**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	39	J	100	12	ug/L	1		6010B	Dissolved
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	43		2.0	2.0	mg/L	1		300.0	Total/NA
Chloride	130		10	10	mg/L	10		300.0	Total/NA
Ammonia	1.6		0.10	0.10	mg/L	1		L107-06-1B	Total/NA
Specific Conductance	550		1.0	1.0	umhos/cm	1		SM 2510B	Total/NA

Client Sample ID: OC-GW-76S**Lab Sample ID: 360-33892-9**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	3.2	J B	5.0	0.65	ug/L	1		6010B	Dissolved
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	46		2.0	2.0	mg/L	1		300.0	Total/NA
Chloride	7.4		1.0	1.0	mg/L	1		300.0	Total/NA
Ammonia	10		0.10	0.10	mg/L	1		L107-06-1B	Total/NA
Specific Conductance	160		1.0	1.0	umhos/cm	1		SM 2510B	Total/NA

Client Sample ID: OC-GW-202S**Lab Sample ID: 360-33892-10**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	4.5	J B	5.0	0.65	ug/L	1		6010B	Dissolved
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	530		20	20	mg/L	10		300.0	Total/NA
Chloride	61		10	10	mg/L	10		300.0	Total/NA
Ammonia	36		0.50	0.50	mg/L	5		L107-06-1B	Total/NA
Specific Conductance	1500		1.0	1.0	umhos/cm	1		SM 2510B	Total/NA

Client Sample ID: OC-GW-202D**Lab Sample ID: 360-33892-11**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	7900		100	12	ug/L	1		6010B	Dissolved
Chromium	620	B	5.0	0.65	ug/L	1		6010B	Dissolved
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	1900		40	40	mg/L	20		300.0	Total/NA
Chloride	250		10	10	mg/L	10		300.0	Total/NA
Ammonia	260		2.0	2.0	mg/L	20		L107-06-1B	Total/NA
Specific Conductance	4800		2.0	2.0	umhos/cm	2		SM 2510B	Total/NA

TestAmerica Westfield

Detection Summary

Client: Olin Corporation

TestAmerica Job ID: 360-33892-1

Project/Site: Olin Chemical SemiAnnual Groundwater

Client Sample ID: OC-GW-25

Lab Sample ID: 360-33892-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	2.6	J B	5.0	0.65	ug/L	1		6010B	Dissolved
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	130		20	20	mg/L	10		300.0	Total/NA
Chloride	19		1.0	1.0	mg/L	1		300.0	Total/NA
Ammonia	27		0.50	0.50	mg/L	5		L107-06-1B	Total/NA
Specific Conductance	510		1.0	1.0	umhos/cm	1		SM 2510B	Total/NA

Client Sample ID: OC-GW-78S

Lab Sample ID: 360-33892-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	2.9	J B	5.0	0.65	ug/L	1		6010B	Dissolved
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	340		20	20	mg/L	10		300.0	Total/NA
Chloride	6.8		1.0	1.0	mg/L	1		300.0	Total/NA
Ammonia	31		0.50	0.50	mg/L	5		L107-06-1B	Total/NA
Specific Conductance	810		1.0	1.0	umhos/cm	1		SM 2510B	Total/NA

Client Sample ID: OC-GW-79S

Lab Sample ID: 360-33892-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	15	J	100	12	ug/L	1		6010B	Dissolved
Chromium	7.1	B	5.0	0.65	ug/L	1		6010B	Dissolved
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	1200		40	40	mg/L	20		300.0	Total/NA
Chloride	170		10	10	mg/L	10		300.0	Total/NA
Ammonia	150		1.0	1.0	mg/L	10		L107-06-1B	Total/NA
Specific Conductance	3000		2.0	2.0	umhos/cm	2		SM 2510B	Total/NA

Client Sample ID: OC-PZ-16RR

Lab Sample ID: 360-33892-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	5.0	B	5.0	0.65	ug/L	1		6010B	Dissolved
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	810		20	20	mg/L	10		300.0	Total/NA
Chloride	120		10	10	mg/L	10		300.0	Total/NA
Ammonia	150		1.0	1.0	mg/L	10		L107-06-1B	Total/NA
Specific Conductance	2300		1.0	1.0	umhos/cm	1		SM 2510B	Total/NA

Client Sample ID: OC-PZ-17RR

Lab Sample ID: 360-33892-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	200		100	12	ug/L	1		6010B	Dissolved
Chromium	140	B	5.0	0.65	ug/L	1		6010B	Dissolved
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	380		20	20	mg/L	10		300.0	Total/NA
Chloride	120		10	10	mg/L	10		300.0	Total/NA
Ammonia	42		0.50	0.50	mg/L	5		L107-06-1B	Total/NA
Specific Conductance	1300		1.0	1.0	umhos/cm	1		SM 2510B	Total/NA

Client Sample ID: OC-PZ-18R

Lab Sample ID: 360-33892-17

Detection Summary

Client: Olin Corporation

TestAmerica Job ID: 360-33892-1

Project/Site: Olin Chemical SemiAnnual Groundwater

Client Sample ID: OC-PZ-18R (Continued)

Lab Sample ID: 360-33892-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	39	B	5.0	0.65	ug/L	1		6010B	Dissolved
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	2100		100	100	mg/L	50		300.0	Total/NA
Chloride	430		20	20	mg/L	20		300.0	Total/NA
Ammonia	350		2.0	2.0	mg/L	20		L107-06-1B	Total/NA
Specific Conductance	5900		4.0	4.0	umhos/cm	4		SM 2510B	Total/NA

Client Sample ID: OC-GW-202S DUP

Lab Sample ID: 360-33892-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	4.7	J B	5.0	0.65	ug/L	1		6010B	Dissolved
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	540		20	20	mg/L	10		300.0	Total/NA
Chloride	63		10	10	mg/L	10		300.0	Total/NA
Ammonia	69		1.0	1.0	mg/L	10		L107-06-1B	Total/NA
Specific Conductance	1500		1.0	1.0	umhos/cm	1		SM 2510B	Total/NA

Client Sample ID: OC-PZ-18R DUP

Lab Sample ID: 360-33892-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	39	B	5.0	0.65	ug/L	1		6010B	Dissolved
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	2000		40	40	mg/L	20		300.0	Total/NA
Chloride	410		10	10	mg/L	10		300.0	Total/NA
Ammonia	350		2.0	2.0	mg/L	20		L107-06-1B	Total/NA
Specific Conductance	5600		4.0	4.0	umhos/cm	4		SM 2510B	Total/NA

Method Summary

Client: Olin Corporation

Project/Site: Olin Chemical SemiAnnual Groundwater

TestAmerica Job ID: 360-33892-1

Method	Method Description	Protocol	Laboratory
6010B	Dissolved Metals	SW846	TAL WFD
300.0	Chloride & Sulfate	40CFR136A	TAL WFD
L107-06-1B	Nitrogen Ammonia	LACHAT	TAL WFD
SM 2510B	Conductivity, Specific Conductance	SM	TAL WFD

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

LACHAT = LACHAT

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL WFD = TestAmerica Westfield, Westfield Executive Park, 53 Southampton Road, Westfield, MA 01085, TEL (413)572-4000

1

2

3

4

5

6

7

8

9

10

11

12

13

14

Sample Summary

Client: Olin Corporation

Project/Site: Olin Chemical SemiAnnual Groundwater

TestAmerica Job ID: 360-33892-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
360-33892-1	OC-GW-10S	Water	05/18/11 12:00	05/18/11 18:15
360-33892-2	OC-GW-201S	Water	05/18/11 12:55	05/18/11 18:15
360-33892-3	OC-GW-24	Water	05/18/11 13:35	05/18/11 18:15
360-33892-4	OC-GW-26	Water	05/18/11 10:50	05/18/11 18:15
360-33892-5	OC-GW-34D	Water	05/17/11 09:30	05/18/11 18:15
360-33892-6	OC-GW-34SR	Water	05/17/11 10:30	05/18/11 18:15
360-33892-7	OC-GW-35S	Water	05/18/11 14:30	05/18/11 18:15
360-33892-8	OC-GW-43SR	Water	05/18/11 14:00	05/18/11 18:15
360-33892-9	OC-GW-76S	Water	05/18/11 09:25	05/18/11 18:15
360-33892-10	OC-GW-202S	Water	05/17/11 08:45	05/18/11 18:15
360-33892-11	OC-GW-202D	Water	05/17/11 09:45	05/18/11 18:15
360-33892-12	OC-GW-25	Water	05/18/11 08:15	05/18/11 18:15
360-33892-13	OC-GW-78S	Water	05/17/11 11:00	05/18/11 18:15
360-33892-14	OC-GW-79S	Water	05/17/11 12:05	05/18/11 18:15
360-33892-15	OC-PZ-16RR	Water	05/18/11 11:05	05/18/11 18:15
360-33892-16	OC-PZ-17RR	Water	05/18/11 10:35	05/18/11 18:15
360-33892-17	OC-PZ-18R	Water	05/18/11 09:05	05/18/11 18:15
360-33892-18	OC-GW-202S DUP	Water	05/17/11 08:45	05/18/11 18:15
360-33892-19	OC-PZ-18R DUP	Water	05/18/11 09:05	05/18/11 18:15

1

2

3

4

5

6

7

8

9

10

11

12

13

14

Client Sample Results

Client: Olin Corporation

Project/Site: Olin Chemical SemiAnnual Groundwater

TestAmerica Job ID: 360-33892-1

Method: 6010B - Dissolved Metals - Dissolved

Client Sample ID: OC-GW-10S		Lab Sample ID: 360-33892-1
Date Collected: 05/18/11 12:00		Matrix: Water
Date Received: 05/18/11 18:15		

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	3300		100	12	ug/L			05/19/11 18:04	1
Chromium	ND		5.0	0.65	ug/L			05/19/11 18:04	1

Client Sample ID: OC-GW-201S		Lab Sample ID: 360-33892-2
Date Collected: 05/18/11 12:55		Matrix: Water
Date Received: 05/18/11 18:15		

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		100	12	ug/L			05/19/11 18:06	1
Chromium	24	B	5.0	0.65	ug/L			05/19/11 18:06	1

Client Sample ID: OC-GW-24		Lab Sample ID: 360-33892-3
Date Collected: 05/18/11 13:35		Matrix: Water
Date Received: 05/18/11 18:15		

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		100	12	ug/L			05/19/11 18:09	1
Chromium	ND		5.0	0.65	ug/L			05/19/11 18:09	1

Client Sample ID: OC-GW-26		Lab Sample ID: 360-33892-4
Date Collected: 05/18/11 10:50		Matrix: Water
Date Received: 05/18/11 18:15		

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		100	12	ug/L			05/19/11 18:12	1
Chromium	7.3	B	5.0	0.65	ug/L			05/19/11 18:12	1

Client Sample ID: OC-GW-34D		Lab Sample ID: 360-33892-5
Date Collected: 05/17/11 09:30		Matrix: Water
Date Received: 05/18/11 18:15		

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		200	25	ug/L			05/20/11 15:49	2
Chromium	14		10	1.3	ug/L			05/20/11 15:49	2

Client Sample ID: OC-GW-34SR		Lab Sample ID: 360-33892-6
Date Collected: 05/17/11 10:30		Matrix: Water
Date Received: 05/18/11 18:15		

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		100	12	ug/L			05/19/11 18:18	1
Chromium	1.2	J B	5.0	0.65	ug/L			05/19/11 18:18	1

Client Sample ID: OC-GW-35S		Lab Sample ID: 360-33892-7
Date Collected: 05/18/11 14:30		Matrix: Water
Date Received: 05/18/11 18:15		

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	34	J	100	12	ug/L			05/19/11 18:21	1
Chromium	14	B	5.0	0.65	ug/L			05/19/11 18:21	1

Client Sample ID: OC-GW-43SR		Lab Sample ID: 360-33892-8
Date Collected: 05/18/11 14:00		Matrix: Water
Date Received: 05/18/11 18:15		

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	39	J	100	12	ug/L			05/19/11 18:24	1
Chromium	ND		5.0	0.65	ug/L			05/19/11 18:24	1

Client Sample Results

Client: Olin Corporation

Project/Site: Olin Chemical SemiAnnual Groundwater

TestAmerica Job ID: 360-33892-1

Method: 6010B - Dissolved Metals - Dissolved

Client Sample ID: OC-GW-76S

Date Collected: 05/18/11 09:25

Date Received: 05/18/11 18:15

Lab Sample ID: 360-33892-9

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		100	12	ug/L			05/19/11 18:27	1
Chromium	3.2	J B	5.0	0.65	ug/L			05/19/11 18:27	1

Client Sample ID: OC-GW-202S

Date Collected: 05/17/11 08:45

Date Received: 05/18/11 18:15

Lab Sample ID: 360-33892-10

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		100	12	ug/L			05/19/11 18:36	1
Chromium	4.5	J B	5.0	0.65	ug/L			05/19/11 18:36	1

Client Sample ID: OC-GW-202D

Date Collected: 05/17/11 09:45

Date Received: 05/18/11 18:15

Lab Sample ID: 360-33892-11

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	7900		100	12	ug/L			05/19/11 18:48	1
Chromium	620	B	5.0	0.65	ug/L			05/19/11 18:48	1

Client Sample ID: OC-GW-25

Date Collected: 05/18/11 08:15

Date Received: 05/18/11 18:15

Lab Sample ID: 360-33892-12

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		100	12	ug/L			05/19/11 18:50	1
Chromium	2.6	J B	5.0	0.65	ug/L			05/19/11 18:50	1

Client Sample ID: OC-GW-78S

Date Collected: 05/17/11 11:00

Date Received: 05/18/11 18:15

Lab Sample ID: 360-33892-13

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		100	12	ug/L			05/19/11 18:53	1
Chromium	2.9	J B	5.0	0.65	ug/L			05/19/11 18:53	1

Client Sample ID: OC-GW-79S

Date Collected: 05/17/11 12:05

Date Received: 05/18/11 18:15

Lab Sample ID: 360-33892-14

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	15	J	100	12	ug/L			05/19/11 18:56	1
Chromium	7.1	B	5.0	0.65	ug/L			05/19/11 18:56	1

Client Sample ID: OC-PZ-16RR

Date Collected: 05/18/11 11:05

Date Received: 05/18/11 18:15

Lab Sample ID: 360-33892-15

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		100	12	ug/L			05/19/11 18:59	1
Chromium	5.0	B	5.0	0.65	ug/L			05/19/11 18:59	1

Client Sample ID: OC-PZ-17RR

Date Collected: 05/18/11 10:35

Date Received: 05/18/11 18:15

Lab Sample ID: 360-33892-16

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	200		100	12	ug/L			05/19/11 19:02	1
Chromium	140	B	5.0	0.65	ug/L			05/19/11 19:02	1

Client Sample Results

Client: Olin Corporation

TestAmerica Job ID: 360-33892-1

Project/Site: Olin Chemical SemiAnnual Groundwater

Method: 6010B - Dissolved Metals - Dissolved

Client Sample ID: OC-PZ-18R

Lab Sample ID: 360-33892-17

Date Collected: 05/18/11 09:05

Matrix: Water

Date Received: 05/18/11 18:15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		100	12	ug/L			05/19/11 19:11	1
Chromium	39	B	5.0	0.65	ug/L			05/19/11 19:11	1

Client Sample ID: OC-GW-202S DUP

Lab Sample ID: 360-33892-18

Date Collected: 05/17/11 08:45

Matrix: Water

Date Received: 05/18/11 18:15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		100	12	ug/L			05/19/11 19:23	1
Chromium	4.7	J B	5.0	0.65	ug/L			05/19/11 19:23	1

Client Sample ID: OC-PZ-18R DUP

Lab Sample ID: 360-33892-19

Date Collected: 05/18/11 09:05

Matrix: Water

Date Received: 05/18/11 18:15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		100	12	ug/L			05/19/11 19:26	1
Chromium	39	B	5.0	0.65	ug/L			05/19/11 19:26	1

Client Sample Results

Client: Olin Corporation

Project/Site: Olin Chemical SemiAnnual Groundwater

TestAmerica Job ID: 360-33892-1

General Chemistry

Client Sample ID: OC-GW-35S

Date Collected: 05/18/11 14:30

Date Received: 05/18/11 18:15

Lab Sample ID: 360-33892-7

Matrix: Water

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		2.0	2.0	mg/L			05/20/11 07:21	1
Chloride	5.8		1.0	1.0	mg/L			05/20/11 07:21	1
Ammonia	22		0.50	0.50	mg/L		05/24/11 11:02	05/25/11 16:04	5
Specific Conductance	1300		1.0	1.0	umhos/cm			05/26/11 08:38	1

Client Sample ID: OC-GW-43SR

Lab Sample ID: 360-33892-8

Matrix: Water

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	43		2.0	2.0	mg/L			05/20/11 07:51	1
Chloride	130		10	10	mg/L			05/20/11 08:06	10
Ammonia	1.6		0.10	0.10	mg/L		05/24/11 11:02	05/25/11 15:15	1
Specific Conductance	550		1.0	1.0	umhos/cm			05/26/11 08:38	1

Client Sample ID: OC-GW-76S

Lab Sample ID: 360-33892-9

Matrix: Water

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	46		2.0	2.0	mg/L			05/20/11 08:21	1
Chloride	7.4		1.0	1.0	mg/L			05/20/11 08:21	1
Ammonia	10		0.10	0.10	mg/L		05/24/11 11:02	05/25/11 15:16	1
Specific Conductance	160		1.0	1.0	umhos/cm			05/26/11 08:38	1

Client Sample ID: OC-GW-202S

Lab Sample ID: 360-33892-10

Matrix: Water

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	530		20	20	mg/L			05/20/11 00:03	10
Chloride	61		10	10	mg/L			05/20/11 00:03	10
Ammonia	36		0.50	0.50	mg/L		05/24/11 11:02	05/25/11 15:57	5
Specific Conductance	1500		1.0	1.0	umhos/cm			05/26/11 08:38	1

Client Sample ID: OC-GW-202D

Lab Sample ID: 360-33892-11

Matrix: Water

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	1900		40	40	mg/L			05/21/11 22:34	20
Chloride	250		10	10	mg/L			05/20/11 09:37	10
Ammonia	260		2.0	2.0	mg/L		05/24/11 11:02	05/25/11 16:25	20
Specific Conductance	4800		2.0	2.0	umhos/cm			05/26/11 08:38	2

Client Sample ID: OC-GW-25

Lab Sample ID: 360-33892-12

Matrix: Water

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	130		20	20	mg/L			05/20/11 10:07	10
Chloride	19		1.0	1.0	mg/L			05/20/11 09:52	1
Ammonia	27		0.50	0.50	mg/L		05/24/11 11:02	05/25/11 16:06	5
Specific Conductance	510		1.0	1.0	umhos/cm			05/26/11 08:38	1

Client Sample Results

Client: Olin Corporation

Project/Site: Olin Chemical SemiAnnual Groundwater

TestAmerica Job ID: 360-33892-1

General Chemistry

Client Sample ID: OC-GW-78S

Date Collected: 05/17/11 11:00

Date Received: 05/18/11 18:15

Lab Sample ID: 360-33892-13

Matrix: Water

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	340		20	20	mg/L			05/20/11 10:37	10
Chloride	6.8		1.0	1.0	mg/L			05/20/11 10:22	1
Ammonia	31		0.50	0.50	mg/L		05/24/11 11:02	05/25/11 16:07	5
Specific Conductance	810		1.0	1.0	umhos/cm			05/27/11 08:30	1

Client Sample ID: OC-GW-79S

Lab Sample ID: 360-33892-14

Matrix: Water

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	1200		40	40	mg/L			05/22/11 01:36	20
Chloride	170		10	10	mg/L			05/20/11 11:08	10
Ammonia	150		1.0	1.0	mg/L		05/24/11 11:02	05/25/11 16:08	10
Specific Conductance	3000		2.0	2.0	umhos/cm			05/27/11 08:30	2

Client Sample ID: OC-PZ-16RR

Lab Sample ID: 360-33892-15

Matrix: Water

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	810		20	20	mg/L			05/20/11 11:38	10
Chloride	120		10	10	mg/L			05/20/11 11:38	10
Ammonia	150		1.0	1.0	mg/L		05/24/11 11:02	05/25/11 16:09	10
Specific Conductance	2300		1.0	1.0	umhos/cm			05/27/11 08:30	1

Client Sample ID: OC-PZ-17RR

Lab Sample ID: 360-33892-16

Matrix: Water

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	380		20	20	mg/L			05/21/11 00:13	10
Chloride	120		10	10	mg/L			05/21/11 00:13	10
Ammonia	42		0.50	0.50	mg/L		05/24/11 11:02	05/25/11 16:12	5
Specific Conductance	1300		1.0	1.0	umhos/cm			05/27/11 08:30	1

Client Sample ID: OC-PZ-18R

Lab Sample ID: 360-33892-17

Matrix: Water

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	2100		100	100	mg/L			05/24/11 14:58	50
Chloride	430		20	20	mg/L			05/22/11 02:51	20
Ammonia	350		2.0	2.0	mg/L		05/24/11 14:24	05/25/11 16:16	20
Specific Conductance	5900		4.0	4.0	umhos/cm			05/27/11 08:30	4

Client Sample ID: OC-GW-202S DUP

Lab Sample ID: 360-33892-18

Matrix: Water

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	540		20	20	mg/L			05/20/11 22:43	10
Chloride	63		10	10	mg/L			05/20/11 22:43	10
Ammonia	69		1.0	1.0	mg/L		05/24/11 11:02	05/25/11 16:14	10
Specific Conductance	1500		1.0	1.0	umhos/cm			05/27/11 08:30	1

Client Sample Results

Client: Olin Corporation

TestAmerica Job ID: 360-33892-1

Project/Site: Olin Chemical SemiAnnual Groundwater

General Chemistry

Client Sample ID: OC-PZ-18R DUP

Lab Sample ID: 360-33892-19

Date Collected: 05/18/11 09:05

Matrix: Water

Date Received: 05/18/11 18:15

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	2000		40	40	mg/L			05/22/11 03:36	20
Chloride	410		10	10	mg/L			05/20/11 23:43	10
Ammonia	350		2.0	2.0	mg/L		05/24/11 14:24	05/25/11 16:19	20
Specific Conductance	5600		4.0	4.0	umhos/cm			05/27/11 08:30	4

Definitions/Glossary

Client: Olin Corporation

Project/Site: Olin Chemical SemiAnnual Groundwater

TestAmerica Job ID: 360-33892-1

Qualifiers

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.
F	MS or MSD exceeds the control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
⊗	Listed under the "D" column to designate that the result is reported on a dry weight basis.
EPA	United States Environmental Protection Agency
ND	Not Detected above the reporting level.
MDL	Method Detection Limit
RL	Reporting Limit
RE, RE1 (etc.)	Indicates a Re-extraction or Reanalysis of the sample.
%R	Percent Recovery
RPD	Relative Percent Difference, a measure of the relative difference between two points.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

QC Association Summary

Client: Olin Corporation

TestAmerica Job ID: 360-33892-1

Project/Site: Olin Chemical SemiAnnual Groundwater

Metals

Analysis Batch: 73908

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 360-73908/1	LCS 360-73908/1	Total/NA	Water	6010B	
MB 360-73908/2	MB 360-73908/2	Total/NA	Water	6010B	5
360-33892-1	OC-GW-10S	Dissolved	Water	6010B	
360-33892-2	OC-GW-201S	Dissolved	Water	6010B	6
360-33892-3	OC-GW-24	Dissolved	Water	6010B	
360-33892-4	OC-GW-26	Dissolved	Water	6010B	7
360-33892-6	OC-GW-34SR	Dissolved	Water	6010B	
360-33892-7	OC-GW-35S	Dissolved	Water	6010B	8
360-33892-8	OC-GW-43SR	Dissolved	Water	6010B	
360-33892-9	OC-GW-76S	Dissolved	Water	6010B	9
LCSD 360-73908/12	LCSD 360-73908/12	Total/NA	Water	6010B	
360-33892-10	OC-GW-202S	Dissolved	Water	6010B	10
360-33892-10 MS	OC-GW-202S	Dissolved	Water	6010B	
360-33892-10 MSD	OC-GW-202S	Dissolved	Water	6010B	
360-33892-11	OC-GW-202D	Dissolved	Water	6010B	11
360-33892-12	OC-GW-25	Dissolved	Water	6010B	
360-33892-13	OC-GW-78S	Dissolved	Water	6010B	12
360-33892-14	OC-GW-79S	Dissolved	Water	6010B	
360-33892-15	OC-PZ-16RR	Dissolved	Water	6010B	13
360-33892-16	OC-PZ-17RR	Dissolved	Water	6010B	
360-33892-17	OC-PZ-18R	Dissolved	Water	6010B	14
360-33892-17 MS	OC-PZ-18R	Dissolved	Water	6010B	
360-33892-17 MSD	OC-PZ-18R	Dissolved	Water	6010B	
360-33892-18	OC-GW-202S DUP	Dissolved	Water	6010B	
360-33892-19	OC-PZ-18R DUP	Dissolved	Water	6010B	

Analysis Batch: 73956

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
360-33892-5	OC-GW-34D	Dissolved	Water	6010B	

General Chemistry

Prep Batch: 73943

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 360-73943/1-A	MB 360-73943/1-A	Total/NA	Water	Distill/Ammonia	
LCS 360-73943/2-A	LCS 360-73943/2-A	Total/NA	Water	Distill/Ammonia	
360-33892-1	OC-GW-10S	Total/NA	Water	Distill/Ammonia	
360-33892-2	OC-GW-201S	Total/NA	Water	Distill/Ammonia	

Analysis Batch: 74000

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 360-74000/5	MB 360-74000/5	Total/NA	Water	300.0	
LCS 360-74000/6	LCS 360-74000/6	Total/NA	Water	300.0	
360-33892-10	OC-GW-202S	Total/NA	Water	300.0	
360-33892-10 MS	OC-GW-202S	Total/NA	Water	300.0	
360-33892-10 MSD	OC-GW-202S	Total/NA	Water	300.0	
360-33892-1	OC-GW-10S	Total/NA	Water	300.0	
360-33892-2	OC-GW-201S	Total/NA	Water	300.0	
360-33892-3	OC-GW-24	Total/NA	Water	300.0	
360-33892-4	OC-GW-26	Total/NA	Water	300.0	
360-33892-5	OC-GW-34D	Total/NA	Water	300.0	
360-33892-6	OC-GW-34SR	Total/NA	Water	300.0	

QC Association Summary

Client: Olin Corporation

Project/Site: Olin Chemical SemiAnnual Groundwater

TestAmerica Job ID: 360-33892-1

General Chemistry (Continued)

Analysis Batch: 74002

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 360-74002/5	MB 360-74002/5	Total/NA	Water	300.0	
LCS 360-74002/6	LCS 360-74002/6	Total/NA	Water	300.0	
360-33892-7	OC-GW-35S	Total/NA	Water	300.0	
360-33892-8	OC-GW-43SR	Total/NA	Water	300.0	
360-33892-8	OC-GW-43SR	Total/NA	Water	300.0	
360-33892-9	OC-GW-76S	Total/NA	Water	300.0	
360-33892-11	OC-GW-202D	Total/NA	Water	300.0	
360-33892-12	OC-GW-25	Total/NA	Water	300.0	
360-33892-12	OC-GW-25	Total/NA	Water	300.0	
360-33892-13	OC-GW-78S	Total/NA	Water	300.0	
360-33892-13	OC-GW-78S	Total/NA	Water	300.0	
360-33892-14	OC-GW-79S	Total/NA	Water	300.0	
360-33892-15	OC-PZ-16RR	Total/NA	Water	300.0	

Analysis Batch: 74004

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 360-74004/5	MB 360-74004/5	Total/NA	Water	300.0	
LCS 360-74004/6	LCS 360-74004/6	Total/NA	Water	300.0	
360-33892-18	OC-GW-202S DUP	Total/NA	Water	300.0	
360-33892-18 MS	OC-GW-202S DUP	Total/NA	Water	300.0	
360-33892-18 MSD	OC-GW-202S DUP	Total/NA	Water	300.0	
360-33892-19	OC-PZ-18R DUP	Total/NA	Water	300.0	
360-33892-16	OC-PZ-17RR	Total/NA	Water	300.0	

Prep Batch: 74068

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 360-74068/1-A	MB 360-74068/1-A	Total/NA	Water	Distill/Ammonia	
LCS 360-74068/2-A	LCS 360-74068/2-A	Total/NA	Water	Distill/Ammonia	
360-33892-10	OC-GW-202S	Total/NA	Water	Distill/Ammonia	
360-33892-10 MS	OC-GW-202S	Total/NA	Water	Distill/Ammonia	
360-33892-10 MSD	OC-GW-202S	Total/NA	Water	Distill/Ammonia	
360-33892-3	OC-GW-24	Total/NA	Water	Distill/Ammonia	
360-33892-4	OC-GW-26	Total/NA	Water	Distill/Ammonia	
360-33892-5	OC-GW-34D	Total/NA	Water	Distill/Ammonia	
360-33892-6	OC-GW-34SR	Total/NA	Water	Distill/Ammonia	
360-33892-7	OC-GW-35S	Total/NA	Water	Distill/Ammonia	
360-33892-8	OC-GW-43SR	Total/NA	Water	Distill/Ammonia	
360-33892-9	OC-GW-76S	Total/NA	Water	Distill/Ammonia	
360-33892-11	OC-GW-202D	Total/NA	Water	Distill/Ammonia	
360-33892-12	OC-GW-25	Total/NA	Water	Distill/Ammonia	
360-33892-13	OC-GW-78S	Total/NA	Water	Distill/Ammonia	
360-33892-14	OC-GW-79S	Total/NA	Water	Distill/Ammonia	
360-33892-15	OC-PZ-16RR	Total/NA	Water	Distill/Ammonia	
360-33892-16	OC-PZ-17RR	Total/NA	Water	Distill/Ammonia	
360-33892-18	OC-GW-202S DUP	Total/NA	Water	Distill/Ammonia	

Prep Batch: 74094

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 360-74094/1-A	MB 360-74094/1-A	Total/NA	Water	Distill/Ammonia	
LCS 360-74094/2-A	LCS 360-74094/2-A	Total/NA	Water	Distill/Ammonia	
360-33892-17	OC-PZ-18R	Total/NA	Water	Distill/Ammonia	
360-33892-17 MS	OC-PZ-18R	Total/NA	Water	Distill/Ammonia	

QC Association Summary

Client: Olin Corporation

Project/Site: Olin Chemical SemiAnnual Groundwater

TestAmerica Job ID: 360-33892-1

General Chemistry (Continued)

Prep Batch: 74094 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
360-33892-17 MSD	OC-PZ-18R	Total/NA	Water	Distill/Ammonia	
360-33892-19	OC-PZ-18R DUP	Total/NA	Water	Distill/Ammonia	

Analysis Batch: 74113

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 360-74113/5	MB 360-74113/5	Total/NA	Water	300.0	
LCS 360-74113/6	LCS 360-74113/6	Total/NA	Water	300.0	
360-33892-2	OC-GW-201S	Total/NA	Water	300.0	
360-33892-11	OC-GW-202D	Total/NA	Water	300.0	

Analysis Batch: 74128

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 360-74128/5	MB 360-74128/5	Total/NA	Water	300.0	
LCS 360-74128/6	LCS 360-74128/6	Total/NA	Water	300.0	
360-33892-14	OC-GW-79S	Total/NA	Water	300.0	
360-33892-17	OC-PZ-18R	Total/NA	Water	300.0	
360-33892-17 MS	OC-PZ-18R	Total/NA	Water	300.0	
360-33892-17 MSD	OC-PZ-18R	Total/NA	Water	300.0	
360-33892-19	OC-PZ-18R DUP	Total/NA	Water	300.0	

Analysis Batch: 74157

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 360-74157/3	MB 360-74157/3	Total/NA	Water	300.0	
LCS 360-74157/4	LCS 360-74157/4	Total/NA	Water	300.0	
360-33892-17	OC-PZ-18R	Total/NA	Water	300.0	
360-33892-17 MS	OC-PZ-18R	Total/NA	Water	300.0	
360-33892-17 MSD	OC-PZ-18R	Total/NA	Water	300.0	

Analysis Batch: 74232

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 360-74232/1	MB 360-74232/1	Total/NA	Water	SM 2510B	
LCS 360-74232/2	LCS 360-74232/2	Total/NA	Water	SM 2510B	
360-33892-1	OC-GW-10S	Total/NA	Water	SM 2510B	
360-33892-2	OC-GW-201S	Total/NA	Water	SM 2510B	
360-33892-3	OC-GW-24	Total/NA	Water	SM 2510B	
360-33892-10	OC-GW-202S	Total/NA	Water	SM 2510B	
360-33892-10 DU	OC-GW-202S	Total/NA	Water	SM 2510B	
360-33892-4	OC-GW-26	Total/NA	Water	SM 2510B	
360-33892-5	OC-GW-34D	Total/NA	Water	SM 2510B	
360-33892-6	OC-GW-34SR	Total/NA	Water	SM 2510B	
360-33892-7	OC-GW-35S	Total/NA	Water	SM 2510B	
360-33892-8	OC-GW-43SR	Total/NA	Water	SM 2510B	
360-33892-9	OC-GW-76S	Total/NA	Water	SM 2510B	
360-33892-11	OC-GW-202D	Total/NA	Water	SM 2510B	
360-33892-12	OC-GW-25	Total/NA	Water	SM 2510B	

Analysis Batch: 74241

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 360-73943/1-A	MB 360-73943/1-A	Total/NA	Water	L107-06-1B	
360-33892-1	OC-GW-10S	Total/NA	Water	L107-06-1B	
LCS 360-73943/2-A	LCS 360-73943/2-A	Total/NA	Water	L107-06-1B	
360-33892-2	OC-GW-201S	Total/NA	Water	L107-06-1B	

TestAmerica Westfield

QC Association Summary

Client: Olin Corporation

TestAmerica Job ID: 360-33892-1

Project/Site: Olin Chemical SemiAnnual Groundwater

General Chemistry (Continued)

Analysis Batch: 74242

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 360-74068/1-A	MB 360-74068/1-A	Total/NA	Water	L107-06-1B	74068
LCS 360-74068/2-A	LCS 360-74068/2-A	Total/NA	Water	L107-06-1B	74068
360-33892-4	OC-GW-26	Total/NA	Water	L107-06-1B	74068
360-33892-6	OC-GW-34SR	Total/NA	Water	L107-06-1B	74068
360-33892-8	OC-GW-43SR	Total/NA	Water	L107-06-1B	74068
360-33892-9	OC-GW-76S	Total/NA	Water	L107-06-1B	74068
360-33892-10	OC-GW-202S	Total/NA	Water	L107-06-1B	74068
360-33892-10 MS	OC-GW-202S	Total/NA	Water	L107-06-1B	74068
360-33892-10 MSD	OC-GW-202S	Total/NA	Water	L107-06-1B	74068
360-33892-3	OC-GW-24	Total/NA	Water	L107-06-1B	74068
360-33892-5	OC-GW-34D	Total/NA	Water	L107-06-1B	74068
360-33892-7	OC-GW-35S	Total/NA	Water	L107-06-1B	74068
360-33892-12	OC-GW-25	Total/NA	Water	L107-06-1B	74068
360-33892-13	OC-GW-78S	Total/NA	Water	L107-06-1B	74068
360-33892-14	OC-GW-79S	Total/NA	Water	L107-06-1B	74068
360-33892-15	OC-PZ-16RR	Total/NA	Water	L107-06-1B	74068
360-33892-16	OC-PZ-17RR	Total/NA	Water	L107-06-1B	74068
360-33892-18	OC-GW-202S DUP	Total/NA	Water	L107-06-1B	74068
360-33892-11	OC-GW-202D	Total/NA	Water	L107-06-1B	74068

Analysis Batch: 74244

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 360-74094/1-A	MB 360-74094/1-A	Total/NA	Water	L107-06-1B	74094
LCS 360-74094/2-A	LCS 360-74094/2-A	Total/NA	Water	L107-06-1B	74094
360-33892-17	OC-PZ-18R	Total/NA	Water	L107-06-1B	74094
360-33892-17 MS	OC-PZ-18R	Total/NA	Water	L107-06-1B	74094
360-33892-17 MSD	OC-PZ-18R	Total/NA	Water	L107-06-1B	74094
360-33892-19	OC-PZ-18R DUP	Total/NA	Water	L107-06-1B	74094

Analysis Batch: 74320

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 360-74320/1	MB 360-74320/1	Total/NA	Water	SM 2510B	
LCS 360-74320/2	LCS 360-74320/2	Total/NA	Water	SM 2510B	
360-33892-17	OC-PZ-18R	Total/NA	Water	SM 2510B	
360-33892-17 DU	OC-PZ-18R	Total/NA	Water	SM 2510B	
360-33892-13	OC-GW-78S	Total/NA	Water	SM 2510B	
360-33892-14	OC-GW-79S	Total/NA	Water	SM 2510B	
360-33892-15	OC-PZ-16RR	Total/NA	Water	SM 2510B	
360-33892-16	OC-PZ-17RR	Total/NA	Water	SM 2510B	
360-33892-18	OC-GW-202S DUP	Total/NA	Water	SM 2510B	
360-33892-19	OC-PZ-18R DUP	Total/NA	Water	SM 2510B	

1

2

3

4

5

6

7

8

9

10

11

12

13

14

QC Sample Results

Client: Olin Corporation
Project/Site: Olin Chemical SemiAnnual Groundwater

TestAmerica Job ID: 360-33892-1

Method: 6010B - Dissolved Metals

Lab Sample ID: MB 360-73908/2 Client Sample ID: MB 360-73908/2
Matrix: Water Prep Type: Total/NA
Analysis Batch: 73908

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		100	12	ug/L			05/19/11 17:58	1
Chromium	0.662	J	5.0	0.65	ug/L			05/19/11 17:58	1

Lab Sample ID: LCS 360-73908/1 Client Sample ID: LCS 360-73908/1
Matrix: Water Prep Type: Total/NA
Analysis Batch: 73908

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec.	Limits	
Aluminum	5000	5250		ug/L		105	80 - 120	
Chromium	1000	974		ug/L		97	80 - 120	

Lab Sample ID: LCSD 360-73908/12 Client Sample ID: LCSD 360-73908/12
Matrix: Water Prep Type: Total/NA
Analysis Batch: 73908

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	% Rec.	Limits	RPD	Limit
Aluminum	5000	5310		ug/L		106	80 - 120	1	20
Chromium	1000	998		ug/L		100	80 - 120	2	20

Lab Sample ID: 360-33892-10 MS Client Sample ID: OC-GW-202S
Matrix: Water Prep Type: Dissolved
Analysis Batch: 73908

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	% Rec.	Limits	
Aluminum	ND		5000	4460		ug/L		89	75 - 125	
Chromium	4.5	J B	1000	836		ug/L		83	75 - 125	

Lab Sample ID: 360-33892-10 MSD Client Sample ID: OC-GW-202S
Matrix: Water Prep Type: Dissolved
Analysis Batch: 73908

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	% Rec.	Limits	RPD	Limit
Aluminum	ND		5000	4420		ug/L		88	75 - 125	1	20
Chromium	4.5	J B	1000	826		ug/L		82	75 - 125	1	20

Lab Sample ID: 360-33892-17 MS Client Sample ID: OC-PZ-18R
Matrix: Water Prep Type: Dissolved
Analysis Batch: 73908

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	% Rec.	Limits	
Aluminum	ND		5000	4030		ug/L		81	75 - 125	
Chromium	39	B	1000	801		ug/L		76	75 - 125	

Lab Sample ID: 360-33892-17 MSD Client Sample ID: OC-PZ-18R
Matrix: Water Prep Type: Dissolved
Analysis Batch: 73908

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	% Rec.	Limits	RPD	Limit
Aluminum	ND		5000	4150		ug/L		83	75 - 125	3	20
Chromium	39	B	1000	828		ug/L		79	75 - 125	3	20

QC Sample Results

Client: Olin Corporation
Project/Site: Olin Chemical SemiAnnual Groundwater

TestAmerica Job ID: 360-33892-1

Method: 300.0 - Chloride & Sulfate (Continued)

Lab Sample ID: LCS 360-74004/6

Matrix: Water

Analysis Batch: 74004

Client Sample ID: LCS 360-74004/6

Prep Type: Total/NA

Analyte		Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec.	Limits
Sulfate		80.0	84.2		mg/L	105	85 - 115		
Chloride		40.0	41.8		mg/L	105	85 - 115		

Lab Sample ID: 360-33892-18 MS

Matrix: Water

Analysis Batch: 74004

Client Sample ID: OC-GW-202S DUP

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	% Rec	% Rec.	Limits
Sulfate	540		200	744		mg/L	100	75 - 125		
Chloride	63		100	171		mg/L	108	75 - 125		

Lab Sample ID: 360-33892-18 MSD

Matrix: Water

Analysis Batch: 74004

Client Sample ID: OC-GW-202S DUP

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	% Rec	% Rec.	RPD	Limit
Sulfate	540		200	746		mg/L	101	75 - 125		0	20
Chloride	63		100	171		mg/L	107	75 - 125		0	20

Lab Sample ID: MB 360-74113/5

Matrix: Water

Analysis Batch: 74113

Client Sample ID: MB 360-74113/5

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		2.0	2.0	mg/L			05/21/11 16:47	1
Chloride	ND		1.0	1.0	mg/L			05/21/11 16:47	1

Lab Sample ID: LCS 360-74113/6

Matrix: Water

Analysis Batch: 74113

Client Sample ID: LCS 360-74113/6

Prep Type: Total/NA

Analyte		Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec.	Limits
Sulfate		80.0	80.7		mg/L	101	85 - 115		
Chloride		40.0	39.9		mg/L	100	85 - 115		

Lab Sample ID: MB 360-74128/5

Matrix: Water

Analysis Batch: 74128

Client Sample ID: MB 360-74128/5

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		2.0	2.0	mg/L			05/21/11 23:20	1
Chloride	ND		1.0	1.0	mg/L			05/21/11 23:20	1

Lab Sample ID: LCS 360-74128/6

Matrix: Water

Analysis Batch: 74128

Client Sample ID: LCS 360-74128/6

Prep Type: Total/NA

Analyte		Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec.	Limits
Sulfate		80.0	81.5		mg/L	102	85 - 115		
Chloride		40.0	40.2		mg/L	101	85 - 115		

QC Sample Results

Client: Olin Corporation

Project/Site: Olin Chemical SemiAnnual Groundwater

TestAmerica Job ID: 360-33892-1

Method: 300.0 - Chloride & Sulfate (Continued)

Lab Sample ID: 360-33892-17 MS

Matrix: Water

Analysis Batch: 74128

Client Sample ID: OC-PZ-18R

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	% Rec.	Limits
	Result	Qualifier	Added	Result	Qualifier				
Chloride	430		200	682	F	mg/L		128	75 - 125

Lab Sample ID: 360-33892-17 MSD

Matrix: Water

Analysis Batch: 74128

Client Sample ID: OC-PZ-18R

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	% Rec.	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier						
Chloride	430		200	613		mg/L		94	75 - 125	11	20

Lab Sample ID: MB 360-74157/3

Matrix: Water

Analysis Batch: 74157

Client Sample ID: MB 360-74157/3

Prep Type: Total/NA

Analyte	MB	MB	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Sulfate	ND		2.0	2.0	mg/L			05/24/11 10:56	1
Chloride	ND		1.0	1.0	mg/L			05/24/11 10:56	1

Lab Sample ID: LCS 360-74157/4

Client Sample ID: LCS 360-74157/4

Prep Type: Total/NA

Analysis Batch: 74157

Analyte	Spike	LCS	LCS	Unit	D	% Rec.	Limits
	Added						
Sulfate	80.0	81.6		mg/L		102	85 - 115
Chloride	40.0	40.5		mg/L		101	85 - 115

Lab Sample ID: 360-33892-17 MS

Client Sample ID: OC-PZ-18R

Prep Type: Total/NA

Analysis Batch: 74157

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	% Rec.	Limits
	Result	Qualifier	Added	Result	Qualifier				
Sulfate	2100		1000	3150		mg/L		107	75 - 125

Lab Sample ID: 360-33892-17 MSD

Client Sample ID: OC-PZ-18R

Prep Type: Total/NA

Analysis Batch: 74157

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	% Rec.	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier						
Sulfate	2100		1000	3160		mg/L		108	75 - 125	0	20

Method: L107-06-1B - Nitrogen Ammonia

Lab Sample ID: MB 360-73943/1-A

Client Sample ID: MB 360-73943/1-A

Prep Type: Total/NA

Analysis Batch: 74241

Analyte	MB	MB	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Ammonia	ND		0.10	0.10	mg/L		05/20/11 14:12	05/25/11 14:39	1

QC Sample Results

Client: Olin Corporation

Project/Site: Olin Chemical SemiAnnual Groundwater

TestAmerica Job ID: 360-33892-1

Method: L107-06-1B - Nitrogen Ammonia (Continued)

Lab Sample ID: LCS 360-73943/2-A

Matrix: Water

Analysis Batch: 74241

Client Sample ID: LCS 360-73943/2-A

Prep Type: Total/NA

Prep Batch: 73943

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec.
Ammonia	10.0	9.81		mg/L		98	90 - 110

Lab Sample ID: MB 360-74068/1-A

Matrix: Water

Analysis Batch: 74242

Client Sample ID: MB 360-74068/1-A

Prep Type: Total/NA

Prep Batch: 74068

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	ND		0.10	0.10	mg/L		05/24/11 11:02	05/25/11 15:04	1

Lab Sample ID: LCS 360-74068/2-A

Matrix: Water

Analysis Batch: 74242

Client Sample ID: LCS 360-74068/2-A

Prep Type: Total/NA

Prep Batch: 74068

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec.
Ammonia	10.0	10.1		mg/L		101	90 - 110

Lab Sample ID: 360-33892-10 MS

Matrix: Water

Analysis Batch: 74242

Client Sample ID: OC-GW-202S

Prep Type: Total/NA

Prep Batch: 74068

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	% Rec	% Rec.
Ammonia	36		10.0	39.9	F	mg/L		37	90 - 110

Lab Sample ID: 360-33892-10 MSD

Matrix: Water

Analysis Batch: 74242

Client Sample ID: OC-GW-202S

Prep Type: Total/NA

Prep Batch: 74068

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	% Rec	% Rec.	RPD
Ammonia	36		10.0	37.3	F	mg/L		10	90 - 110	7

Lab Sample ID: MB 360-74094/1-A

Matrix: Water

Analysis Batch: 74244

Client Sample ID: MB 360-74094/1-A

Prep Type: Total/NA

Prep Batch: 74094

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	ND		0.10	0.10	mg/L		05/24/11 14:24	05/25/11 15:27	1

Lab Sample ID: LCS 360-74094/2-A

Matrix: Water

Analysis Batch: 74244

Client Sample ID: LCS 360-74094/2-A

Prep Type: Total/NA

Prep Batch: 74094

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec.
Ammonia	10.0	9.27		mg/L		93	90 - 110

Lab Sample ID: 360-33892-17 MS

Matrix: Water

Analysis Batch: 74244

Client Sample ID: OC-PZ-18R

Prep Type: Total/NA

Prep Batch: 74094

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	% Rec	% Rec.
Ammonia	350		10.0	337	4	mg/L		-114	90 - 110

TestAmerica Westfield

QC Sample Results

Client: Olin Corporation

Project/Site: Olin Chemical SemiAnnual Groundwater

TestAmerica Job ID: 360-33892-1

Method: L107-06-1B - Nitrogen Ammonia (Continued)

Lab Sample ID: 360-33892-17 MSD

Matrix: Water

Analysis Batch: 74244

Client Sample ID: OC-PZ-18R

Prep Type: Total/NA

Prep Batch: 74094

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	% Rec.	RPD
	Result	Qualifier	Added	Result	Qualifier			Limits	
Ammonia	350		10.0	325	4	mg/L	-233	90 - 110	4 20

Method: SM 2510B - Conductivity, Specific Conductance

Lab Sample ID: MB 360-74232/1

Matrix: Water

Analysis Batch: 74232

Client Sample ID: MB 360-74232/1

Prep Type: Total/NA

Analyte	MB	MB	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Specific Conductance	ND		1.0	1.0	umhos/cm			05/26/11 08:38	1

Lab Sample ID: LCS 360-74232/2

Matrix: Water

Analysis Batch: 74232

Client Sample ID: LCS 360-74232/2

Prep Type: Total/NA

Analyte	Spike	LCS	LCS	Unit	D	% Rec.
	Added	Result	Qualifier			
Specific Conductance		1410	1400	umhos/cm	99	85 - 115

Lab Sample ID: 360-33892-10 DU

Matrix: Water

Analysis Batch: 74232

Client Sample ID: OC-GW-202S

Prep Type: Total/NA

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier						
Specific Conductance	1500		1490		umhos/cm		2	20

Lab Sample ID: MB 360-74320/1

Matrix: Water

Analysis Batch: 74320

Client Sample ID: MB 360-74320/1

Prep Type: Total/NA

Analyte	MB	MB	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Specific Conductance	ND		1.0	1.0	umhos/cm			05/27/11 08:30	1

Lab Sample ID: LCS 360-74320/2

Matrix: Water

Analysis Batch: 74320

Client Sample ID: LCS 360-74320/2

Prep Type: Total/NA

Analyte	Spike	LCS	LCS	Unit	D	% Rec.
	Added	Result	Qualifier			
Specific Conductance		1410	1390	umhos/cm	99	85 - 115

Lab Sample ID: 360-33892-17 DU

Matrix: Water

Analysis Batch: 74320

Client Sample ID: OC-PZ-18R

Prep Type: Total/NA

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier						
Specific Conductance	5900		5920		umhos/cm		0.7	20

1
2
3
4
5
6
7
8
9
10
11
12
13
14

DILUTION LOGS

TestAmerica Westfield
Analytical Dilution Preparation Log

Analyst Initials	Date	Method	LIMS Sample ID	Rptd Dil.	Sample Aliquot 1	Final Volume 1	Units	Serial Dilution		Comments
								Sample Aliquot 2	Final Volume 2	
XMB	5/21/11	300.0	33936H1	10	1	ml	10			
			2		1		10			
			3		1		10			
			4		-		10			
			5		-		10			
			6		1		10			
			7		1		10			
			8		1		10			
			9		1		10			
			10		1		10			
			11		1		10			
			12		1		10			
			33892B2	20	500	µl	10			
			J1		100	µl	10			
			33893H3	100	100	µl	10			
					200	50	µl	10		
					500	20	µl	10		
			33892B4	20	500	µl	10			
			J5		50	200	µl	10		

SO₄ over range

entries completed by day [new page each day]

0079

TestAmerica Westfield
Analytical Dilution Preparation Log

Analyst Initials	Date	Method	LIMS Sample ID	Rpt'd Dil.	Sample Aliquot 1	Final Volume 1	Units	Sample Aliquot 2	Final Volume 2	Units	Serial Dilution		Comments
RUE	5-19-11	300.0	33893H1	10X	1	100	uL	10	uL				
			C10u		1	10	uL						
			H6		1	10	uL						
			H8		1	10	uL						
			H4		1	10	uL						
			H9		1	10	uL						
			H7		1	10	uL						
			H3		1	10	uL						
			H5		1	10	uL						
			33892B10		1	10	uL						
			33893H2		1	10	uL						
			33892B1		1	10	uL						
			B2		1	10	uL						
			B3		1	10	uL						
			B4		1	10	uL						
			B5		1	10	uL						
			B6		1	10	uL						
			B17		1	10	uL						
			B7		1	10	uL						
			/										

entries completed by day [new page each day]

004g

TestAmerica Westfield
Analytical Dilution Preparation Log

5-19-11

Date:

Analyst Initials	Date	Method	LIMS Sample ID	Rptd Dil.	Sample Aliquot 1	Final Volume 1	Units	Sample Aliquot 2	Final Volume 2	Units	Serial Dilution		Comments
											Units	Comments	
RUE	5-19-11	300.0	33893H1	10X	1	100	µL	10	100	µL			
			C10u		1	10	µL						
			H6		1	10	µL						
			H8		1	10	µL						
			H4		1	10	µL						
			H9		1	10	µL						
			H7		1	10	µL						
			H3		1	10	µL						
			H5		1	10	µL						
			33892B10		1	10	µL						
			33893H2		1	10	µL						
			33892B1		1	10	µL						
			B2		1	10	µL						
			B3		1	10	µL						
			B4		1	10	µL						
			B5		1	10	µL						
			B6		1	10	µL						
			B17		1	10	µL						
			/		1	10	µL						
			/		1	10	µL						

entries completed by day [new page each day]

004g

Analytical Dilution Preparation Log

Date: 5-19-11

Analyst Initials	Date	Method	LIMS Sample ID	Rptd Dil.	Sample Aliquot 1	Final Volume 1	Units	Serial Dilution			Comments
								Sample Aliquot 2	Units	Final Volume 2	
RUE	5-19-11	300:0	33892B8	(0X)	1	100	uL	10	uL	100	
			B10		1	100	uL	10	uL	100	
			B11		1	100	uL	10	uL	100	
			B12		1	100	uL	10	uL	100	
			B13		1	100	uL	10	uL	100	
			B14		1	100	uL	10	uL	100	
			B15		1	100	uL	10	uL	100	
			B16		1	100	uL	10	uL	100	
			B17		1	100	uL	10	uL	100	
			B18		1	100	uL	10	uL	100	
			B19		1	100	uL	10	uL	100	
			B20		1	100	uL	10	uL	100	

entries completed by day [new page each day]

005g

1
2
3
4
5
6
7
8
9
10
11
12
13
14

TestAmerica Westfield
Analytical Dilution Preparation Log

Date: 5-20-11

Analyst Initials	Date	Method	LIMS Sample ID	Rpt'd Dil.	Serial Dilution						Comments
					Sample Aliquot 1	Final Volume 1	Units	Sample Aliquot 2	Final Volume 2	Units	
RUE	5-20-11	300.0	33914 H1	10X	1 mL	10 mL	mL				
			C1 DIL		1	10	mL				
			H12		1	10	mL				
			H13		1	10	mL				
			H11		1	10	mL				
			H16		1	10	mL				
			H19		1	10	mL				
			HS		1	10	mL				
			H8		1	10	mL				
			H14		1	10	mL				
			H7		1	10	mL				
			H10		1	10	mL				
			H2		1	10	mL				
			33914 H1	50X	200 µL	10 mL	µL				
				100X	100 µL	10 mL	µL				
				100X	100 µL	10 mL	µL				
			C1 DIL								

* entries completed by day [new page each day]

0069

TestAmerica Westfield
Analytical Dilution Preparation Log

Analyst Initials	Date	Method	LIMS Sample ID	Rapid Dil.	Sample Aliquot 1	Final Volume 1	Units	Serial Dilution			Comments
								Sample Aliquot 2	Units	Final Volume 2	
KNS	5/21/11	300.0	338936H1	10	1	ml	10	ml	10	ml	
			2		1						
			3		1						
			4		1						
			5		1						
			6		1						
			7		1						
			8		1						
			9		1						
			10		1						
			11		1						
			12		1						
			338932B2	20	500	ml	10	ml	10	ml	
			J11		↓						
			338934S	100	100	ml	10	ml	10	ml	
					↓						
				200	50	ml	10	ml	10	ml	
					500	20	ml	10	ml	10	
					300	500	ml	10	ml	10	
						↓					
							↓				
								↓			
									↓		
										↓	

Say over range

0079

entries completed by day [new page each day]

TestAmerica Westfield
Analytical Dilution Preparation Log

Analyst Initials	Date	Method	LIMs Sample ID	Rptd Dil.	Sample Aliquot 1			Sample Aliquot 2			Serial Dilution			Comments
					Final Volume 1	Units	Final Volume 1	Units	Final Volume 2	Units	Final Volume 2	Units	Final Volume 2	
MMS	5/21/11	300.0	338973315	100	100	µL	100	µL	10	µL	10	µL	10	
				17	20	µL	500	µL	10	µL	10	µL	10	
				19	20	µL	500	µL	10	µL	10	µL	10	

0089

entries completed by day [new page each day]

1
2
3
4
5
6
7
8
9
10
11
12
13
14

TestAmerica Westfield
Analytical Dilution Preparation Log

Date: 5-19-11

Analyst Initials	Date	Method	LiMs Sample ID	Rpt'd Dil.	Sample Aliquot 1	Final Volume 1	Units	Serial Dilution			Comments
								Sample Aliquot 2	Units	Final Volume 2	
RUE	5-19-11	300.0	33893H1	10X	1	100	uL				
			C10a								
			H6								
			H8								
			H4								
			H9								
			H7								
			H3								
			H5								
			33892B10								
			33893H2								
			33892B1								
			B2								
			B3								
			B4								
			B5								
			B6								
			B17								
			B7								

entries completed by day [new page each day]

004g

TestAmerica Westfield
Analytical Dilution Preparation Log

Date: 5-20-11

Analyst Initials	Date	Method	LIMS Sample ID	Rpd Dil.	Sample Aliquot 1	Final Volume 1	Serial Dilution		Comments
							Sample Aliquot 2	Final Volume 2	
RUE	5-20-11	300:5	33914 H1	10X	1 μL	10 μL			
			C1 Due		1 μL	10 μL			
			H12		1 μL	10 μL			
			H3		1 μL	10 μL			
			H11		1 μL	10 μL			
			H6		1 μL	10 μL			
			H9		1 μL	10 μL			
			H5		1 μL	10 μL			
			H8		1 μL	10 μL			
			H4		1 μL	10 μL			
			H7		1 μL	10 μL			
			H10		1 μL	10 μL			
			H2		1 μL	10 μL			
			33914 H1	50X	200 μL	10 μL			
				100X	100 μL	10 μL			
				100X	100 μL	10 μL			

entries completed by day [new page each day]

0369

TestAmerica Westfield
Analytical Dilution Preparation Log

Date: 5-24-11

Analyst Initials	Date	Method	LIMS Sample ID	Rsrc Dil.	Sample Aliquot 1	Final Volume 1	Units	Sample Aliquot 2	Final Volume 2	Units	Serial Dilution		Comments
											Serial Dilution		
Ric	5-24-11	300	33836A14	10X	1 mL	10	mL						
			417	10X	1	10							
			416	10X	1	10							
			415	10X	1	10							
			33892B17	50X	200 μL	10	μL						
			33836A11	20X	500	10							
			418	20X	500	10							
			33892B11	50X	200	10							
			62	20X	500	10							
			61	50X	200	10							
			614	20X	500	10							
			614	20X	200	10							
			33914H9	20X	500	10							
			H9	50X	200	10							
			H5	20X	500	10							
			H5	50X	200	10							
			H8	20X	500	10							
			H6	20X	500	10							
			H7	20X	500	10							

entries completed by day [new page each day]

009g

TestAmerica Westfield
Analytical Dilution Preparation Log

Date: 5-25-11

Analyst Initials	Date	Method	LIMS Sample ID	Rpt'd Dil.	Serial Dilution			Comments		
					Sample Aliquot 1	Final Volume 1	Units	Sample Aliquot 2	Final Volume 2	Units
Rue	5-25-11	Nit3	33835A6BMS	5X	1 mL	5 mL	mL			
			ACC/MSD	5X	1	5				
			AHA	5X	1	5				
			ASA	5X	1	5				
			ATA	5X	1	5				
			33892CRA	10X	1	10				
			C16A	10X	1	10				
			C10BMS	10X	1	10				
			C10CUSD	10X	1	10				
			C3A	5X	1	5				
			C5A	5X	1	5				
			C7A	5X	1	5				
			C11A	10X	1	10				
			C12A	5X	1	5				
			C13A	5X	1	5				
			C14A	10X	1	10				
			C15A	10X	1	10				
			C16A	5X	1	5				
			C17A	10X	500 mL	10 L	L			

entries completed by day [new page each day]

092e

TestAmerica Westfield
Analytical Dilution Preparation Log

Date: 5-25-11

Analyst Initials	Date	Method	LIMS Sample ID	Rpt'd Dil.	Sample Aliquot 1	Final Volume 1	Units	Sample Aliquot 2	Final Volume 2	Units	Serial Dilution		Comments
RUE	5-25-11	NK3	33892C18A	10X	1 ml	10	uL						
			33893G1A	5X	1 ml	5	uL						
			1 DIA DU	5X	1 ml	5	uL						
			33892C17C	500	500 uL	10	uL						
			C19DMS	20X	1 ml	2	uL						
			C17E50	20X	1 ml	2	uL						
			C19A	20X	500 uL	10	uL						
			33893G6A	10X	1 ml	10	uL						
			33914G7A	20X	500 uL	10	uL						
			C19A	20X	500 uL	10	uL						
RUE	5-25-11	NH3	33892C1A	20X	500 uL	10	uL						

entries completed by day [new page each day]

Done

TestAmerica Westfield
Analytical Dilution Preparation Log

Date: 5-25-11

Analyst Initials	Date	Method	LIMS Sample ID	Rpt'd Dil.	Serial Dilution		Comments
					Sample Aliquot 1	Final Volume 1	
Rue	5-25-11	Nit3	3383SA6BMS	5X	1 mL	5 mL	
			ACGMSD	5X	1	5	
			AHA	5X	1	5	
			ASA	5X	1	5	
			ATA	5X	1	5	
			33892CRA	10X	1	10	
			CIA	10X	1	10	
			CIBMS	10X	1	10	
			CICMSD	10X	1	10	
			C3A	5X	1	5	
			C5A	5X	1	5	
			C7A	5X	1	5	
			C1A	10X	1	10	
			C12A	5X	1	5	
			C13A	5X	1	5	
			C14A	10X	1	10	
			C15A	10X	1	10	
			C16A	5X	1	5	
			C1XP	20X	500 μL	10 mL	

entries completed by day [new page each day]

002e

TestAmerica Westfield
Analytical Dilution Preparation Log

Date: 5-25-11

Analyst Initials	Date	Method	LIMS Sample ID	Rpt'd Dil.	Sample Aliquot 1	Final Volume 1	Units	Sample Aliquot 2	Final Volume 2	Units	Serial Dilution		Comments
											Units	Final Volume 2	
KUE	5-25-11	NK3	33892C18A	10X	1	10	uL						
			33893G1A	5X	1	5	uL						
			✓ BIA DU	5X	1	5	uL						
			33892C17C	500	100	10	uL						
			CAPMS	20X	1	1	uL						
			C17ENSO	20X	1	1	uL						
			✓ C19A	20X	500	10	uL						
			33893G6A	10X	1	10	uL						
			33914G7A	20X	500	10	uL						
			✓ G9A	1	1	1	uL						
PG	5-25-11	N43	33892C1A	20X	500	10	uL						

entries completed by day [new page each day]

633e

TestAmerica Westfield
Analytical Dilution Preparation Log

Date: 5-25-11

Analyst Initials	Date	Method	LIMS Sample ID	Rpt'd Dil.	Serial Dilution			Comments
					Sample Aliquot 1	Final Volume 1	Units	
RUE	5-25-11	Nit3	33835A6MS	5X	1 mL	5	µL	
			ACC/MSD	5X	1	5		
			AHA	5X	1	5		
			ASA	5X	1	5		
			ATA	5X	1	5		
			33892CZA	10X	1	10		
			C16A	10X	1	10		
			C16MS	10X	1	10		
			C16CUS	10X	1	10		
			C3A	5X	1	5		
			C5A	5X	1	5		
			C7A	5X	1	5		
			C1A	10X	1	10		
			C1A	5X	1	5		
			C13A	5X	1	5		
			C14A	10X	1	10		
			C15A	10X	1	10		
			C16A	5X	1	5		
			C17A	10X	500	10		

entries completed by day [new page each day]

002e

TestAmerica Westfield
Analytical Dilution Preparation Log

Date: 5-25-11

Analyst Initials	Date	Method	LIMS Sample ID	Rptd Dil.	Sample Aliquot 1	Final Volume 1	Units	Serial Dilution			Comments
								Sample Aliquot 2	Final Volume 2	Units	
RUE	5-25-11	Nik3	33892C18A	10X	1 ml	10 ml	ml				
			33893G1A	5X	1 ml	5 ml	ml				
			1 GIA DU	5X	1 ml	5 ml	ml				
			33892C17C	300X	500 µl	10 µl	µl				
			C17E450	20X	1 ml	5 ml	ml				
			C17E450	10X	1 ml	5 ml	ml				
			1 C19A	10X	500 µl	10 µl	µl				
			33893G6A	10X	1 ml	10 ml	ml				
			33914G7A	20X	500 µl	10 µl	µl				
			1 G9A	5X	1 ml	5 ml	ml				
RUE	5-25-11	NH3	33892C11A	20X	500 µl	10 µl	µl				

entries completed by day [new page each day]

Done

Lab Chronicle

Client: Olin Corporation

TestAmerica Job ID: 360-33892-1

Project/Site: Olin Chemical SemiAnnual Groundwater

Client Sample ID: OC-GW-10S

Lab Sample ID: 360-33892-1

Date Collected: 05/18/11 12:00

Matrix: Water

Date Received: 05/18/11 18:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Dissolved	Analysis	6010B		1	73908	05/19/11 18:04	TJS	TAL WFD
Total/NA	Analysis	300.0		1	74000	05/20/11 01:49	RWE	TAL WFD
Total/NA	Analysis	SM 2510B		1	74232	05/26/11 08:38	AMS	TAL WFD
Total/NA	Prep	Distill/Ammonia			73943	05/20/11 14:12	RWE	TAL WFD
Total/NA	Analysis	L107-06-1B		1	74241	05/25/11 14:54	RWE	TAL WFD

Client Sample ID: OC-GW-201S

Lab Sample ID: 360-33892-2

Date Collected: 05/18/11 12:55

Matrix: Water

Date Received: 05/18/11 18:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Dissolved	Analysis	6010B		1	73908	05/19/11 18:06	TJS	TAL WFD
Total/NA	Analysis	300.0		1	74000	05/20/11 02:49	RWE	TAL WFD
Total/NA	Analysis	300.0		20	74113	05/21/11 22:19	RWE	TAL WFD
Total/NA	Analysis	SM 2510B		1	74232	05/26/11 08:38	AMS	TAL WFD
Total/NA	Prep	Distill/Ammonia			73943	05/20/11 14:12	RWE	TAL WFD
Total/NA	Analysis	L107-06-1B		10	74241	05/25/11 15:56	RWE	TAL WFD

Client Sample ID: OC-GW-24

Lab Sample ID: 360-33892-3

Date Collected: 05/18/11 13:35

Matrix: Water

Date Received: 05/18/11 18:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Dissolved	Analysis	6010B		1	73908	05/19/11 18:09	TJS	TAL WFD
Total/NA	Analysis	300.0		1	74000	05/20/11 03:19	RWE	TAL WFD
Total/NA	Analysis	SM 2510B		1	74232	05/26/11 08:38	AMS	TAL WFD
Total/NA	Prep	Distill/Ammonia			74068	05/24/11 11:02	RWE	TAL WFD
Total/NA	Analysis	L107-06-1B		5	74242	05/25/11 16:02	RWE	TAL WFD

Client Sample ID: OC-GW-26

Lab Sample ID: 360-33892-4

Date Collected: 05/18/11 10:50

Matrix: Water

Date Received: 05/18/11 18:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Dissolved	Analysis	6010B		1	73908	05/19/11 18:12	TJS	TAL WFD
Total/NA	Analysis	300.0		1	74000	05/20/11 03:50	RWE	TAL WFD
Total/NA	Analysis	SM 2510B		1	74232	05/26/11 08:38	AMS	TAL WFD
Total/NA	Prep	Distill/Ammonia			74068	05/24/11 11:02	RWE	TAL WFD
Total/NA	Analysis	L107-06-1B		1	74242	05/25/11 15:09	RWE	TAL WFD

Lab Chronicle

Client: Olin Corporation

TestAmerica Job ID: 360-33892-1

Project/Site: Olin Chemical SemiAnnual Groundwater

Client Sample ID: OC-GW-34D

Lab Sample ID: 360-33892-5

Date Collected: 05/17/11 09:30

Matrix: Water

Date Received: 05/18/11 18:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Dissolved	Analysis	6010B		2	73956	05/20/11 15:49	TJS	TAL WFD
Total/NA	Analysis	300.0		1	74000	05/20/11 04:20	RWE	TAL WFD
Total/NA	Analysis	SM 2510B		1	74232	05/26/11 08:38	AMS	TAL WFD
Total/NA	Prep	Distill/Ammonia			74068	05/24/11 11:02	RWE	TAL WFD
Total/NA	Analysis	L107-06-1B		5	74242	05/25/11 16:03	RWE	TAL WFD

Client Sample ID: OC-GW-34SR

Lab Sample ID: 360-33892-6

Date Collected: 05/17/11 10:30

Matrix: Water

Date Received: 05/18/11 18:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Dissolved	Analysis	6010B		1	73908	05/19/11 18:18	TJS	TAL WFD
Total/NA	Analysis	300.0		1	74000	05/20/11 04:50	RWE	TAL WFD
Total/NA	Analysis	SM 2510B		1	74232	05/26/11 08:38	AMS	TAL WFD
Total/NA	Prep	Distill/Ammonia			74068	05/24/11 11:02	RWE	TAL WFD
Total/NA	Analysis	L107-06-1B		1	74242	05/25/11 15:13	RWE	TAL WFD

Client Sample ID: OC-GW-35S

Lab Sample ID: 360-33892-7

Date Collected: 05/18/11 14:30

Matrix: Water

Date Received: 05/18/11 18:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Dissolved	Analysis	6010B		1	73908	05/19/11 18:21	TJS	TAL WFD
Total/NA	Analysis	300.0		1	74002	05/20/11 07:21	RWE	TAL WFD
Total/NA	Analysis	SM 2510B		1	74232	05/26/11 08:38	AMS	TAL WFD
Total/NA	Prep	Distill/Ammonia			74068	05/24/11 11:02	RWE	TAL WFD
Total/NA	Analysis	L107-06-1B		5	74242	05/25/11 16:04	RWE	TAL WFD

Client Sample ID: OC-GW-43SR

Lab Sample ID: 360-33892-8

Date Collected: 05/18/11 14:00

Matrix: Water

Date Received: 05/18/11 18:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Dissolved	Analysis	6010B		1	73908	05/19/11 18:24	TJS	TAL WFD
Total/NA	Analysis	300.0		1	74002	05/20/11 07:51	RWE	TAL WFD
Total/NA	Analysis	300.0		10	74002	05/20/11 08:06	RWE	TAL WFD
Total/NA	Analysis	SM 2510B		1	74232	05/26/11 08:38	AMS	TAL WFD
Total/NA	Prep	Distill/Ammonia			74068	05/24/11 11:02	RWE	TAL WFD
Total/NA	Analysis	L107-06-1B		1	74242	05/25/11 15:15	RWE	TAL WFD

Lab Chronicle

Client: Olin Corporation

TestAmerica Job ID: 360-33892-1

Project/Site: Olin Chemical SemiAnnual Groundwater

Client Sample ID: OC-GW-76S

Date Collected: 05/18/11 09:25

Date Received: 05/18/11 18:15

Lab Sample ID: 360-33892-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Dissolved	Analysis	6010B		1	73908	05/19/11 18:27	TJS	TAL WFD
Total/NA	Analysis	300.0		1	74002	05/20/11 08:21	RWE	TAL WFD
Total/NA	Analysis	SM 2510B		1	74232	05/26/11 08:38	AMS	TAL WFD
Total/NA	Prep	Distill/Ammonia			74068	05/24/11 11:02	RWE	TAL WFD
Total/NA	Analysis	L107-06-1B		1	74242	05/25/11 15:16	RWE	TAL WFD

Client Sample ID: OC-GW-202S

Date Collected: 05/17/11 08:45

Date Received: 05/18/11 18:15

Lab Sample ID: 360-33892-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Dissolved	Analysis	6010B		1	73908	05/19/11 18:36	TJS	TAL WFD
Total/NA	Analysis	300.0		10	74000	05/20/11 00:03	RWE	TAL WFD
Total/NA	Analysis	SM 2510B		1	74232	05/26/11 08:38	AMS	TAL WFD
Total/NA	Prep	Distill/Ammonia			74068	05/24/11 11:02	RWE	TAL WFD
Total/NA	Analysis	L107-06-1B		5	74242	05/25/11 15:57	RWE	TAL WFD

Client Sample ID: OC-GW-202D

Date Collected: 05/17/11 09:45

Date Received: 05/18/11 18:15

Lab Sample ID: 360-33892-11

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Dissolved	Analysis	6010B		1	73908	05/19/11 18:48	TJS	TAL WFD
Total/NA	Analysis	300.0		10	74002	05/20/11 09:37	RWE	TAL WFD
Total/NA	Analysis	300.0		20	74113	05/21/11 22:34	RWE	TAL WFD
Total/NA	Analysis	SM 2510B		2	74232	05/26/11 08:38	AMS	TAL WFD
Total/NA	Prep	Distill/Ammonia			74068	05/24/11 11:02	RWE	TAL WFD
Total/NA	Analysis	L107-06-1B		20	74242	05/25/11 16:25	RWE	TAL WFD

Client Sample ID: OC-GW-25

Date Collected: 05/18/11 08:15

Date Received: 05/18/11 18:15

Lab Sample ID: 360-33892-12

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Dissolved	Analysis	6010B		1	73908	05/19/11 18:50	TJS	TAL WFD
Total/NA	Analysis	300.0		1	74002	05/20/11 09:52	RWE	TAL WFD
Total/NA	Analysis	300.0		10	74002	05/20/11 10:07	RWE	TAL WFD
Total/NA	Analysis	SM 2510B		1	74232	05/26/11 08:38	AMS	TAL WFD
Total/NA	Prep	Distill/Ammonia			74068	05/24/11 11:02	RWE	TAL WFD
Total/NA	Analysis	L107-06-1B		5	74242	05/25/11 16:06	RWE	TAL WFD

Lab Chronicle

Client: Olin Corporation

TestAmerica Job ID: 360-33892-1

Project/Site: Olin Chemical SemiAnnual Groundwater

Client Sample ID: OC-GW-78S

Lab Sample ID: 360-33892-13

Matrix: Water

Date Collected: 05/17/11 11:00

Date Received: 05/18/11 18:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Dissolved	Analysis	6010B		1	73908	05/19/11 18:53	TJS	TAL WFD
Total/NA	Analysis	300.0		1	74002	05/20/11 10:22	RWE	TAL WFD
Total/NA	Analysis	300.0		10	74002	05/20/11 10:37	RWE	TAL WFD
Total/NA	Prep	Distill/Ammonia			74068	05/24/11 11:02	RWE	TAL WFD
Total/NA	Analysis	L107-06-1B		5	74242	05/25/11 16:07	RWE	TAL WFD
Total/NA	Analysis	SM 2510B		1	74320	05/27/11 08:30	AMS	TAL WFD

Client Sample ID: OC-GW-79S

Lab Sample ID: 360-33892-14

Matrix: Water

Date Collected: 05/17/11 12:05

Date Received: 05/18/11 18:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Dissolved	Analysis	6010B		1	73908	05/19/11 18:56	TJS	TAL WFD
Total/NA	Analysis	300.0		10	74002	05/20/11 11:08	RWE	TAL WFD
Total/NA	Analysis	300.0		20	74128	05/22/11 01:36	RWE	TAL WFD
Total/NA	Prep	Distill/Ammonia			74068	05/24/11 11:02	RWE	TAL WFD
Total/NA	Analysis	L107-06-1B		10	74242	05/25/11 16:08	RWE	TAL WFD
Total/NA	Analysis	SM 2510B		2	74320	05/27/11 08:30	AMS	TAL WFD

Client Sample ID: OC-PZ-16RR

Lab Sample ID: 360-33892-15

Matrix: Water

Date Collected: 05/18/11 11:05

Date Received: 05/18/11 18:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Dissolved	Analysis	6010B		1	73908	05/19/11 18:59	TJS	TAL WFD
Total/NA	Analysis	300.0		10	74002	05/20/11 11:38	RWE	TAL WFD
Total/NA	Prep	Distill/Ammonia			74068	05/24/11 11:02	RWE	TAL WFD
Total/NA	Analysis	L107-06-1B		10	74242	05/25/11 16:09	RWE	TAL WFD
Total/NA	Analysis	SM 2510B		1	74320	05/27/11 08:30	AMS	TAL WFD

Client Sample ID: OC-PZ-17RR

Lab Sample ID: 360-33892-16

Matrix: Water

Date Collected: 05/18/11 10:35

Date Received: 05/18/11 18:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Dissolved	Analysis	6010B		1	73908	05/19/11 19:02	TJS	TAL WFD
Total/NA	Analysis	300.0		10	74004	05/21/11 00:13	RWE	TAL WFD
Total/NA	Prep	Distill/Ammonia			74068	05/24/11 11:02	RWE	TAL WFD
Total/NA	Analysis	L107-06-1B		5	74242	05/25/11 16:12	RWE	TAL WFD
Total/NA	Analysis	SM 2510B		1	74320	05/27/11 08:30	AMS	TAL WFD

Certification Summary

Client: Olin Corporation

Project/Site: Olin Chemical SemiAnnual Groundwater

TestAmerica Job ID: 360-33892-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Westfield	Connecticut	State Program	1	PH-0494
TestAmerica Westfield	Florida	NELAC	4	E87912
TestAmerica Westfield	Maine	State Program	1	MA00014
TestAmerica Westfield	Massachusetts	State Program	1	M-MA014
TestAmerica Westfield	New Hampshire	NELAC	1	2539
TestAmerica Westfield	New Jersey	NELAC	2	MA008
TestAmerica Westfield	New York	NELAC	2	10843
TestAmerica Westfield	North Carolina	North Carolina DENR	4	647
TestAmerica Westfield	Rhode Island	State Program	1	LAO00057
TestAmerica Westfield	Vermont	State Program	1	VT-10843

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

State Accreditation Matrix

Method Name	Description	State where Primary Accreditation is Carried				
		New Hampshire (NELAC) prim.	Mass	Conn	Florida (NELAC)	North Carolina
821-R-02-012	Toxicity, Acute (48-Hour)(list upon request)	NP			NP	
SM 4500 CI F	Chlorine, Residual		NP			
SM 9215E	Heterotrophic Plate Count (SimPlate)		P			
SM 9222D	Coliforms, Fecal (Membrane Filter)		P/NP			
SM 9223	Coliforms, Total, and E.Coli (Colilert-P/A)		P			
SM 9224	Coliforms, Total, and E.Coli (Enumeration)		P			
1103.1	E.coli		ambient/ source			
Enterolert	Enterococcus					
200.8 Rev 5.4	Metals (ICP/MS) (list upon request)	NP/P	NP/P	NP/P		
200.7 Rev 4.4	Metals (ICP)(list upon request)	NP/P	NP/P	NP/P		
6010B	Metals (ICP)(list upon request)	NP/SW		NP/SW		
245.1	Mercury (CVAA)	NP/P	NP	NP/P		
7470A	Mercury (CVAA)	NP		NP		
7471A	Mercury (CVAA)	SW		SW		
SM 2340B	Total Hardness (as CaCO ₃) by calculation	NP/P	NP	NP/P		
3005A	Preparation, Total Recoverable or Dissolved Metals	NP/P		NP/P		
3010A	Preparation, Total Metals	NP/P		NP/P		
3020A	Preparation, Total Metals	NP/P/SW		NP/P/SW		
3050B	Preparation, Metals	SW		SW		
504.1	EDB, DBCP and 1,2,3-TCP (GC)	P	P	P		
608	Organochlorine Pest/PCBs (list upon request)	NP	NP	NP		
625	Semivolatile Org Comp (GC/MS)(list upon request)	NP		NP		
3546	Microwave Extraction	SW				
3510C	Liquid-Liquid Extraction (Separatory Funnel)	NP		NP		
3540C	Soxhlet Extraction	SW				
3550B	Ultrasonic Extraction	SW		SW		
600/4-81-045	Polychlorinated Biphenyls (PCBs) (GC)		NP	NP		
8081A	Organochlorine Pesticides (GC)(list upon request)	NP/SW		NP/SW		
8082	PCBs by Gas Chromatography(list upon request)	NP/SW		NP/SW		
8270C	Semivolatile Comp.(GC/MS)(list upon request)	NP/SW		NP/SW		
CT ETPH	Conn - Ext. Total petroleum Hydrocarbons (GC)			NP/SW		
MA-EPH	Mass - Extractable Petroleum Hydrocarbons (GC)			NP/SW	NP/SW	
524.2	Volatile Org Comp (GC/MS)(list upon request)	P	P	P		
524.2	Trihalomethane compounds	P	P	P		
624	Volatile Org Comp (GC/MS)(list upon request)	NP	NP	NP		
5035	Closed System Purge and Trap	SW		SW		
5030B	Purge and Trap	NP		NP		
8260B	Volatile Org Comp. (GC/MS)(list upon request)	NP/SW		NP/SW		
MAVPH	Mass - Volatile Petroleum Hydrocarbons (GC)			NP/SW	NP/SW	
180.1	Turbidity, Nephelometric	P	P	P		
300	Anions, Ion Chromatography	NP/P	NP/P	NP/P		
410.4	COD	NP	NP	NP		
1010	Ignitability, Pensky-Martens Closed-Cup Method	SW		SW		
10-107-06-2	Nitrogen, Total Kjeldahl	NP	NP	NP		
7196A	Chromium, Hexavalent	NP/SW		NP/SW		
9012A	Cyanide, Total and/or Amenable	NP/SW		NP/SW		
9030B	Sulfide, Distillation (Acid Soluble and Insoluble)	NP		NP		
9040B	pH	NP		NP		
9045C	pH	SW		SW		
L107041C	Nitrogen, Nitrate	NP	P	NP/P		
L107-06-1B	Nitrogen Ammonia	NP	NP	NP/P		
L204001A CN	Cyanide, Total	P	NP/P	NP/P		
L210-001A	Phenolics, Total Recoverable	NP	NP	NP		
SM 2320B	Alkalinity	NP/P	NP/P	NP/P		
SM 2510B	Conductivity, Specific Conductance	NP/P	NP/P	NP/P		
SM 2540C	Solids, Total Dissolved (TDS)	NP/P	NP/P	NP/P		
SM 2540D	Solids, Total Suspended (TSS)	NP	NP	NP		
SM 3500 CR D	Chromium, Hexavalent	NP		NP		
SM 4500 H+ B	pH	NP/P	NP/P	NP/P		
SM 4500 NO ₂ B	Nitrogen, Nitrite	NP	P	NP/P		
SM 4500 P E	Phosphorus, Orthophosphate	NP/P	NP	NP/P		
SM 4500 P E	Phosphorus, Total	NP	NP	NP		
SM 4500 S2 D	Sulfide, Total	NP		NP		
SM 5210B	BOD, 5-Day	NP	NP	NP		
SM 5310B	Organic Carbon, Total (TOC)	NP/P	NP	NP/P		

Not all organic compounds are accredited under NELAC

For methods with multiple compounds all compounds may not meet NELAC criteria, listing should be obtained from the laboratory

The lab carries additional accreditations with several states. This is the laboratories typical listing but is subject to change based on the laboratories current certification standing.

Login Sample Receipt Checklist

Client: Olin Corporation

Job Number: 360-33892-1

Login Number: 33892

List Source: TestAmerica Westfield

List Number: 1

Creator: Ard, Vanessa L

Question	Answer	Comment	
Radioactivity either was not measured or, if measured, is at or below background	N/A		1
The cooler's custody seal, if present, is intact.	N/A		2
The cooler or samples do not appear to have been compromised or tampered with.	True		3
Samples were received on ice.	True		4
Cooler Temperature is acceptable.	True		5
Cooler Temperature is recorded.	True		6
COC is present.	True		7
COC is filled out in ink and legible.	True		8
COC is filled out with all pertinent information.	True		9
Is the Field Sampler's name present on COC?	True		10
There are no discrepancies between the sample IDs on the containers and the COC.	True		11
Samples are received within Holding Time.	True		12
Sample containers have legible labels.	True		13
Containers are not broken or leaking.	True		14
Sample collection date/times are provided.	True		
Appropriate sample containers are used.	True		
Sample bottles are completely filled.	True		
Sample Preservation Verified.	True		
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True		
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A		
Multiphasic samples are not present.	True		
Samples do not require splitting or compositing.	True		
Residual Chlorine Checked.	N/A		

TestAmerica Westfield

Westfield Executive Park 53 Southampton Road
Westfield, MA 01085
Phone (413) 572-4000 Fax (413) 572-3707

Chain of Custody Record

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

© 2011 TestAmerica, Inc.

000-33890

Client Information		Sampler:	Lab Pnt:	Carrier Tracking No(s):			CCG No:	
Client Contact:	James Cashwell	Phone:	Mason, Becky C				Page: 1 of 2	
Company:	Olin Co Corporation	E-Mail:	becky.mason@testamericainc.com				Job #:	
Address:		Due Date Requested:	Analysis Requested					Preservation Codes:
51 Eam's street		TAT Requested (days):						A - HCl B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:
City: Wilington		PO #:						M - Hexane N - None O - AsNaO2 P - Na2CO3 Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4.5 Z - other (specify):
State Zip: MA, 01887		WO #:						
Phone:		Project #:						Total Number of Containers:
Email:		36001816						
Project Name: Olin SemiAnnual Groundwater		SSOW#:						
Sample Identification		Sample Date	Sample Time	Sample Type	Matrix	Special Instructions/Note:		
				(C=comp, G=grab)	(W=water, S=solid, O=water/oil, A=air)			
				Preservation Code:	S D N			
OC-GW-10S		5-18-11	12:30	G	Water	Y	X X X	
OC-GW-201S		5-18-11	12:55	G	Water	Y	X X X	
OC-GW-24		5-18-11	13:35	G	Water	Y	X X X	
OC-GW-26		5-18-11	18:50	G	Water	Y	X X X	
OC-GW-34D		5-17-11	9:30	G	Water	Y	X X X	
OC-GW-34SR		5-17-11	10:30	G	Water	Y	X X X	
OC-GW-35S		5/18/11	14:30	G	Water	Y	X X X	
OC-GW-42S					Water	Y	X X X	
OC-GW-43SR		5-18-11	14:45	G	Water	Y	X X X	
OC-GW-76S		5-18-11	9:25	G	Water	Y	X X X	
OC-GW-LCA1					Water	Y	X X X	
Possible Hazard Identification		<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological					Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	
Deliverable Requested: I, II, III, IV, Other (specify):							<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For Months	
Empty Kit Relinquished by:		Date:	Time:	Received by:	Method of Shipment:			
Relinquished by: <i>John Deen</i>		Date/Time: <i>5/18/11</i>	Company: <i>OLIN</i>	Received by: <i>John Deen</i>	Method of Shipment: <i>5/18/11</i>	Date/Time: <i>5/18/11</i>	Company: <i>OLIN</i>	
Relinquished by: <i>John Deen</i>		Date/Time: <i>5/18/11</i>	Company: <i>OLIN</i>	Received by: <i>John Deen</i>	Method of Shipment: <i>5/18/11</i>	Date/Time: <i>5/18/11</i>	Company: <i>OLIN</i>	
Custody Seals Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No							Cooler Temperature(s) °C and Other Remarks: <i>76.0 / 2.0 / 1.0</i>	

1
2
3
4
5
6
7
8
9
10
11
12
13
14

TestAmerica Westfield

Westfield Executive Park 53 Southampton Road
Westfield, MA 01085
Phone (413) 572-4000 Fax (413) 572-3707

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Contact: James Cashwell

Client Information

Client Information		Sampler:	Lab Pnt: Mason, Becky C		Carrier Tracking No(s):		COC No:	Page:																																																																																																																																																																																																																																																																																																																																																				
Client Contact:	James Cashwell	Phone:	E-Mail:	becky.mason@testamericanainc.com	Job #:																																																																																																																																																																																																																																																																																																																																																							
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="9" style="text-align: center;">Analysis Requested</th> </tr> </thead> <tbody> <tr> <td style="width: 10%;">Address:</td> <td colspan="8"></td> </tr> <tr> <td>51 Earnes Street</td> <td>TAT Requested (days):</td> <td colspan="7"></td> </tr> <tr> <td>City: Willington</td> <td></td> <td colspan="7"></td> </tr> <tr> <td>State, Zip:</td> <td colspan="8"></td> </tr> <tr> <td>MA, 01887</td> <td>PO #:</td> <td colspan="8"></td> </tr> <tr> <td>Phone:</td> <td>REW/10013</td> <td colspan="8"></td> </tr> <tr> <td>Email:</td> <td>beguichard@olin.com</td> <td colspan="8"></td> </tr> <tr> <td>Project Name:</td> <td>Project #:</td> <td colspan="8"></td> </tr> <tr> <td>Olin Quarterly Groundwater</td> <td>36001816</td> <td colspan="8"></td> </tr> <tr> <td>Site:</td> <td>SSOW#:</td> <td colspan="8"></td> </tr> <tr> <td colspan="9" style="text-align: right;">Total Number of Contaminants:</td> </tr> <tr> <td colspan="9" style="text-align: right;">Special Instructions/Note:</td> </tr> <tr> <td colspan="2">Sample Identification</td> <td>Sample Date</td> <td>Sample Time</td> <td>Sample Type (C=comp, G=grab)</td> <td>Matrix (Water, Sewage, Oil/water, Brine/Brackish, Aqueous)</td> <td>Preservation Code:</td> <td>S</td> <td>D</td> <td>N</td> </tr> <tr> <td>OC-GW-202S</td> <td>5-17-11</td> <td>8:45</td> <td>G</td> <td>Water</td> <td>Y Y X X X</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>OC-GW-202D</td> <td>5-17-11</td> <td>9:45</td> <td>G</td> <td>Water</td> <td>Y X X X X</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>OC-GW-25</td> <td>5-18-11</td> <td>8:45</td> <td>G</td> <td>Water</td> <td>Y X X X X</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>OC-GW-78S</td> <td>5-17-11</td> <td>11:00</td> <td>G</td> <td>Water</td> <td>Y X X X X</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>OC-GW-79S</td> <td>5-17-11</td> <td>12:05</td> <td>G</td> <td>Water</td> <td>Y X X X X</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>OC-PZ-16RR</td> <td>5-18-11</td> <td>11:05</td> <td>G</td> <td>Water</td> <td>Y X X X X</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>OC-PZ-17RR</td> <td>5-18-11</td> <td>10:35</td> <td>G</td> <td>Water</td> <td>Y X X X X</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>OC-PZ-18R</td> <td>5-18-11</td> <td>9:05</td> <td>G</td> <td>Water</td> <td>Y X X X X</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>OC-PZ-14</td> <td></td> <td></td> <td></td> <td>Water</td> <td>X X X X X</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td>Water</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td>Water</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td colspan="9" style="text-align: right;">Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)</td> </tr> <tr> <td colspan="9" style="text-align: right;"> <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For Months </td> </tr> <tr> <td colspan="9" style="text-align: right;">Special Instructions/QC Requirements:</td> </tr> <tr> <td colspan="2">Possible Hazard Identification</td> <td><input type="checkbox"/> Non-Hazard</td> <td><input type="checkbox"/> Flammable</td> <td><input type="checkbox"/> Skin Irritant</td> <td><input type="checkbox"/> Poison B</td> <td><input type="checkbox"/> Unknown</td> <td><input type="checkbox"/> Radiological</td> <td colspan="2"></td> </tr> <tr> <td colspan="2">Deliverable Requested: I, II, III, IV, Other (specify)</td> <td colspan="2"></td> <td>Date:</td> <td>Time:</td> <td colspan="2">Method of Shipment</td> <td colspan="2"></td> </tr> <tr> <td colspan="2">Empty Kit Relinquished by:</td> <td colspan="2"></td> <td>Date/Time:</td> <td>Received by:</td> <td colspan="2"></td> <td>Date/Time:</td> <td>Company</td> </tr> <tr> <td colspan="2">Relinquished by:</td> <td colspan="2"></td> <td>Date/Time:</td> <td>Received by:</td> <td colspan="2"></td> <td>Date/Time:</td> <td>Company</td> </tr> <tr> <td colspan="2">Relinquished by:</td> <td colspan="2"></td> <td>Date/Time:</td> <td>Received by:</td> <td colspan="2"></td> <td>Date/Time:</td> <td>Company</td> </tr> <tr> <td colspan="2">Custody Seals intact:</td> <td colspan="2">Custody Seal No.:</td> <td colspan="2"></td> <td colspan="2"></td> <td colspan="2">Cooler Temperature(s)°C and Other Remarks</td> </tr> <tr> <td colspan="2"><input checked="" type="checkbox"/> Yes</td> <td colspan="2"><input type="checkbox"/> No</td> <td colspan="2"></td> <td colspan="2"></td> <td colspan="2">20.0 / 10.0 / 10.0</td> </tr> </tbody></table>									Analysis Requested									Address:									51 Earnes Street	TAT Requested (days):								City: Willington									State, Zip:									MA, 01887	PO #:									Phone:	REW/10013									Email:	beguichard@olin.com									Project Name:	Project #:									Olin Quarterly Groundwater	36001816									Site:	SSOW#:									Total Number of Contaminants:									Special Instructions/Note:									Sample Identification		Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Water, Sewage, Oil/water, Brine/Brackish, Aqueous)	Preservation Code:	S	D	N	OC-GW-202S	5-17-11	8:45	G	Water	Y Y X X X					OC-GW-202D	5-17-11	9:45	G	Water	Y X X X X					OC-GW-25	5-18-11	8:45	G	Water	Y X X X X					OC-GW-78S	5-17-11	11:00	G	Water	Y X X X X					OC-GW-79S	5-17-11	12:05	G	Water	Y X X X X					OC-PZ-16RR	5-18-11	11:05	G	Water	Y X X X X					OC-PZ-17RR	5-18-11	10:35	G	Water	Y X X X X					OC-PZ-18R	5-18-11	9:05	G	Water	Y X X X X					OC-PZ-14				Water	X X X X X									Water										Water						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)									<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For Months									Special Instructions/QC Requirements:									Possible Hazard Identification		<input type="checkbox"/> Non-Hazard	<input type="checkbox"/> Flammable	<input type="checkbox"/> Skin Irritant	<input type="checkbox"/> Poison B	<input type="checkbox"/> Unknown	<input type="checkbox"/> Radiological			Deliverable Requested: I, II, III, IV, Other (specify)				Date:	Time:	Method of Shipment				Empty Kit Relinquished by:				Date/Time:	Received by:			Date/Time:	Company	Relinquished by:				Date/Time:	Received by:			Date/Time:	Company	Relinquished by:				Date/Time:	Received by:			Date/Time:	Company	Custody Seals intact:		Custody Seal No.:						Cooler Temperature(s)°C and Other Remarks		<input checked="" type="checkbox"/> Yes		<input type="checkbox"/> No						20.0 / 10.0 / 10.0	
Analysis Requested																																																																																																																																																																																																																																																																																																																																																												
Address:																																																																																																																																																																																																																																																																																																																																																												
51 Earnes Street	TAT Requested (days):																																																																																																																																																																																																																																																																																																																																																											
City: Willington																																																																																																																																																																																																																																																																																																																																																												
State, Zip:																																																																																																																																																																																																																																																																																																																																																												
MA, 01887	PO #:																																																																																																																																																																																																																																																																																																																																																											
Phone:	REW/10013																																																																																																																																																																																																																																																																																																																																																											
Email:	beguichard@olin.com																																																																																																																																																																																																																																																																																																																																																											
Project Name:	Project #:																																																																																																																																																																																																																																																																																																																																																											
Olin Quarterly Groundwater	36001816																																																																																																																																																																																																																																																																																																																																																											
Site:	SSOW#:																																																																																																																																																																																																																																																																																																																																																											
Total Number of Contaminants:																																																																																																																																																																																																																																																																																																																																																												
Special Instructions/Note:																																																																																																																																																																																																																																																																																																																																																												
Sample Identification		Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Water, Sewage, Oil/water, Brine/Brackish, Aqueous)	Preservation Code:	S	D	N																																																																																																																																																																																																																																																																																																																																																			
OC-GW-202S	5-17-11	8:45	G	Water	Y Y X X X																																																																																																																																																																																																																																																																																																																																																							
OC-GW-202D	5-17-11	9:45	G	Water	Y X X X X																																																																																																																																																																																																																																																																																																																																																							
OC-GW-25	5-18-11	8:45	G	Water	Y X X X X																																																																																																																																																																																																																																																																																																																																																							
OC-GW-78S	5-17-11	11:00	G	Water	Y X X X X																																																																																																																																																																																																																																																																																																																																																							
OC-GW-79S	5-17-11	12:05	G	Water	Y X X X X																																																																																																																																																																																																																																																																																																																																																							
OC-PZ-16RR	5-18-11	11:05	G	Water	Y X X X X																																																																																																																																																																																																																																																																																																																																																							
OC-PZ-17RR	5-18-11	10:35	G	Water	Y X X X X																																																																																																																																																																																																																																																																																																																																																							
OC-PZ-18R	5-18-11	9:05	G	Water	Y X X X X																																																																																																																																																																																																																																																																																																																																																							
OC-PZ-14				Water	X X X X X																																																																																																																																																																																																																																																																																																																																																							
				Water																																																																																																																																																																																																																																																																																																																																																								
				Water																																																																																																																																																																																																																																																																																																																																																								
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)																																																																																																																																																																																																																																																																																																																																																												
<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For Months																																																																																																																																																																																																																																																																																																																																																												
Special Instructions/QC Requirements:																																																																																																																																																																																																																																																																																																																																																												
Possible Hazard Identification		<input type="checkbox"/> Non-Hazard	<input type="checkbox"/> Flammable	<input type="checkbox"/> Skin Irritant	<input type="checkbox"/> Poison B	<input type="checkbox"/> Unknown	<input type="checkbox"/> Radiological																																																																																																																																																																																																																																																																																																																																																					
Deliverable Requested: I, II, III, IV, Other (specify)				Date:	Time:	Method of Shipment																																																																																																																																																																																																																																																																																																																																																						
Empty Kit Relinquished by:				Date/Time:	Received by:			Date/Time:	Company																																																																																																																																																																																																																																																																																																																																																			
Relinquished by:				Date/Time:	Received by:			Date/Time:	Company																																																																																																																																																																																																																																																																																																																																																			
Relinquished by:				Date/Time:	Received by:			Date/Time:	Company																																																																																																																																																																																																																																																																																																																																																			
Custody Seals intact:		Custody Seal No.:						Cooler Temperature(s)°C and Other Remarks																																																																																																																																																																																																																																																																																																																																																				
<input checked="" type="checkbox"/> Yes		<input type="checkbox"/> No						20.0 / 10.0 / 10.0																																																																																																																																																																																																																																																																																																																																																				